FOOTBALL


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## FOOTBALL

BY

WALTER CAMP and LORIN F. DELAND



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## PREFACE

In the treatment of the many questions considered in these pages, it has not been possible to lay down arbitrary lines, or to give unqualified advice. The wider knowledge which has come with the development of the modern game has greatly multiplied the possibilities of every situation. Rarely can any question be now answered by the categorical imperative.

The difficulty is further increased in this volume by the constant necessity of discriminating between different grades of players. The conditions which exist with a 'Varsity team are not present in the team of a preparatory school. The argument for the one is not the argument for the other. The advice must be constantly qualified.

This volume is published in the hope that it may aid in the development of American football, and more especially that it may encourage a scientific study of the game. The great popularity of this sport is not without its reasonable warrant. It calls out not merely the qualities which make the soldier, - bravery, endurance, obedience, self-control, but equally that mental acumen which makes the successful man in any of the affairs of life - perception, discrimination, and judgment.

To the casual observer, football doubtless presents merely the spectacle of vigorous physical exercise. But a deeper insight will discover the steady development of those other qualities which make the complete man - quick determination, instant obedience, self-reliance, physical bravery. The
great lesson of the game may be put into a single line: it teaches that brains will always win over muscle!

It is no drawback to the game that its object is a simple one; when you tell the spectator that each side is trying to reach the opponent's goal, you have stated all that need be said. It is similarly no drawback to its popularity that professional football is unknown in America.

But the great merit of this sport is its practically unlimited field of tactical development. The fascinating study of new movements and combinations is never exhausted. It is this tactical possibility which has elevated football in popular esteem above all other sports. The cause of its attractiveness has its parallel in war. No pages of war history are so interesting to the student as the stirring descriptions of battles in which, by superior direction, a comparatively small body of soldiers has routed a force of twice its strength.

It is on these high lines that the American game of football may be developed. It is in the hope that they may aid that development that the authors print this volume.

September, 1896.

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## PART I <br> FOR THE SPECTATOR

# FOOTBALL 

## CHAPTER I

THE HISTORY OF FOOTBALL, WITH A BRIEF DESCRIPTION of the various games

Ancient Origin of the Game. It is impossible to state exactly at what time the game of football originated. Even the Greeks and Romans had a sport which consisted in kicking about some kind of an object under certain general rules, and this may be taken, in a wide sense, to have been the forerunner of the present game.

In English twelfth-century literature mention is made on several occasions of a sport which was known by the name of football, and was played with great enthusiasm by the lower classes. Shakespeare, in his writings, also speaks of football, classing it as a low form of amusement.

Crude Form of the Early Sport. According to contemporaneous accounts of this game, the object of each side was to carry or kick a ball over a certain mark taken as the opponents' goal line, and at the same time prevent such a score from being made against themselves. The distances between these goals were generally very long, even reaching two or three miles at times, and extending from one village to another. A French writer who paid a visit to England in the seventeenth century describes the game as follows :-
"En hiver le footbal est un exercice utile et charmant. C'est un ballon de cuir, gros comme la tête et rempli de vent; cela se ballotte avec le pied dans les mes par celui qui le peut attraper; il n'y a point d'autre science." The description given in the last words of this extract is hardly in keep-
ing with the statement that football was "charmant" and "utile." From the fact that it contained very little science and was played solely by the lower classes of the people, it is fair to assume that it was very rough, if not actually brutal. This supposition is further confirmed by the fact that numerous laws were passed, at intervals, imposing a heavy sentence upon any one who played or witnessed a game of football.

Growth and Popularity. In spite of these hindrances the game retained its popularity through several centuries, as a sport for the men rather than the boys, of the lower classes. The triumph of Puritanism was a serious check, however, and in the eighteenth century the enthusiasm waned considerably. When the sport was again taken up, it found favor among the younger rather than the older members of the community, and at the opening of the present century the public school boys were beginning to adopt it as a pastime in spite of considerable opposition from the parents of the better class, who did not like to have their boys engage in such a rough game at the peril of their clothes and limbs.

The Game in the Public Schools. Each of the public schools, in adopting this game, which as yet was governed by no fixed code of laws, was obliged to form its own rules and regulations, which to a large extent were demanded by the size and nature of the grounds and other local considerations. It was, for instance, at Rugby alone that the playground was large enough to allow the running and tackling game to be played. At Charterhouse and Westminster there were no places suitable for this style of play, so the "dribbling" game was introduced. The players were not allowed to touch the ball with their hands, but made progress through kicking alone. The art of rolling the ball along the ground by gentle kicks from the toe or shin as a player was running was called "dribbling;" and it was in this way possible for experts to dodge opponents by quick turns to the right or left, and gain much ground towards the desired goal withont losing the ball. At Harrow the conditions were suitable for kicking and fair catching, but the players were not allowed to run with the ball or to collar each other. The Eton schoolboys introduced kicking to some extent on their rather lim-
ited field, and invented the "wall game," which is very unique and peculiar, adapted and confined to that school.

These various games developed gradually, each governed largely by the local requirements and resources; and in the begiming of the present century they could be divided roughly into two classes : the first of these was known as the "dribbling" game, and the latter as "Rugby," being the same that was played at that school. In the former it was not lawful to touch the ball with the hands, or to trip or tackle an opponent, but ground was gained in the proper direction by kicking and dribbling alone; while the principal feature of the latter, which was played at Rugby, was the "scrummage," which will be fully described later on, - and running with the ball and tackling were both allowed. Neither game was free from objectionable features, and players were always exposed to more or less serious injuries. The size of the field of play and the number of participants on the two sides were not defined in any respect. The readers of "Tom Brown at Rugby" will remember the vivid, though somewhat exaggerated, description of the Rugby game, as given by East to the new arrival at the school, and how it was a fixed custom for the sixth form boys to play against all the rest of the school. The methods of prohibiting rough play and of giving a high value to science and skill were discovered very slowly, and are not yet wholly attained.

Athletic Revival, 1850-1860. During the years 1850 to 1860 there was a decided revival of all athletic sports in the public schools of England, and football became the most popular game for the winter months. This was immediately followed by the formation of clubs through the efforts of old school players, in the universities and large towns, where the dribbling game was adopted more generally than the Rugby, but was played entirely under local rules. The first steps towards a joint football organization were taken in 1863, when a number of the London Rugby clubs attempted to draw up a uniform code of laws which should be acceptable to all parties. In the mean time, the more enthusiastic followers of the dribbling game had come to an agreement over their rules, and formed themselves
into the "Football Association." A joint conference was next held between the Rugbeians and the Dribblers, for the purpose of effecting a compromise upon the points in which the two games differed. This step was, however, found to be impossible, as the principles of the two games were essentially different, and the Dribblers, though greater in numbers and advocating the more popular form of the game, were not strong enough to carry their points over the obstinate and persistent followers of the Rugby game.

During the next ten years the Rugby game greatly increased in popularity, and finally, in 1871, the principal London clubs united in forming the "Rugby Football Union." Rules were adopted which tended to eliminate the more objectionable features of hacking and tripping, and to introduce more skill and science; otherwise the game remained essentially the same as had been played for a number of years at Rugby schools.

Association and Rugby Separation. From this point the two games, known as Association and Rugby, have drifted further and further apart, and have been adopted with more or less enthusiasm in all parts of Great Britain. There seems to be no danger of either one ever driving the other out of the country, and it is almost impossible to explain why their comparative popularity should vary as it does in the different sections of the country.

Development of Rugby. As the Rugby game is that from which our American Intercollegiate was derived, it is of interest to follow this branch closely and note the familiar points. In the original Rugby Union Rules, no provision was made for the size of the field or the number of men who should constitute a side. The fields probably varied very much in both length and breadth; but the most convenient dimensions were found to be 110 yards in length and 75 yards in breadth, while the number of players was usually twenty on a side. At each end of the field were erected goals, consisting of two upright posts 18 feet and 6 inches apart, joined together by a horizontal bar 10 feet from the ground. A goal could be obtained by either a "drop-kick," performed by letting the ball fall from the hands and kick-


Diagram A. - Rugby Union Game.
ing the instant it rose, or a "place-kick," when the ball was held in the proper position on the ground by one player, and then kicked by another. The only other form of kick was a "punt," in performing which the ball was kicked immediately after leaving the hands while still in the air.

The game was opened by a' "kick-off," the captains having previously "tossed up" to see which side should have this privilege or the choice of goals. A man of the side choosing the kick-off then took a place-kick from the centre of the field, the members of his own side standing behind the ball, and of the opposing side at a distance of ten yards. Such a kick could not count as a goal. A player obtaining the ball after such a kick could kick or run, as he deemed most expedient, in order to make progress in the desired direction. If he chose the latter play his opponents were free to tackle him, and thus try to bring him to a standstill. When once fairly "held," the runner was obliged to cry "down," and place the ball on the ground for a scrummage. A scrummage was defined as taking place "when the holder of the ball, being in the field of play, puts it down on the ground in front of him, and all who have closed around on their respective sides endeavor to push their opponents back, and, by kicking the ball, to drive it in the direction of the opposite goal line." This was really the most prominent feature of the game, and was of very uncertain outcome. Not all the men of a side would take part, but a few stood behind on either side in order to capture the ball, if it should happen to roll or be kicked out, and then either make a pass to some other player, or try a run in person. At other times this mass of struggling, kicking players might move slowly down the field, or sway back and forth for several minutes before being broken up, or some lucky man might force his way through with the ball before him, and dribble it successfully for a considerable distance. If a player, in such ways as above described, could carry the ball at any point over his opponents' goal line, and there touch it down, his side was entitled to a "try" at goal, to be made by a place-kick from a point in the field of play either opposite to that point behind the goal where the ball
was touched down, or at a point marked by a fair catch of a punt by a member of his own side from a point on the goal line opposite to the point at which the ball was touched down. A goal conld also be obtained at any time in the game when a player had succeeded in approaching near enough to send the ball between the posts and over the bar by a quick dropkick. This act was, however, very difficult to perform, as the opponents were very apt to block the kick, or interfere in such a way as to effectually spoil the kicker's aim. $\Lambda$ quick and accurate drop kicker was a valuable man on any team, and the science of drop kicking was studied by all ambitious players.

Previous to the adoption of the Rugby Union rules, matches were decided by a majority of goals alone, tries being entirely disregarded; but after 1871, in case no goals were scored by either side, or an equal number by each side, the match was won by the team scoring the majority of tries, rather than count as a draw game. After a goal had been scored the game was recommenced by a kick-off at the centre of the field by the side losing the goal.

The Principal Rules. The principal features of the original Rugby Union game have thus been described. It now remains to speak of certain rules which, to a casual observer, would not seem to be of serious importance, but which are the key to the success of the game. If a player entered a scrummage from his opponents' side (i. e., facing the goal which he was defending), or got in front of the ball, either in a scrummage or in open play when the ball had been kicked, touched, or was being run with by any of his own side behind him (i. e., between himself and his goal), he was declared "off-side." No player when off-side could touch the ball or a player, or in any way interfere with the progress of the game. He was, however, put "on-side" again when one of his own side had run in front of him (i. e., had passed to a point between him and his opponents' goal), either with the ball, or having kicked it when behind him, or when the ball had touched the dress or person of any player on the opposite side. This rule appears at first very complicated and not altogether necessary; but when the
principle was once mastered by a player, it was readily put into practice, and the referee of a game was obliged to enforce it strictly.

In case a player, while running with the ball, should allow any part of his person to pass out of bounds (or "into touch," as the technical expression has it), he must return to the spot where he crossed the line, and he himself or any player of his own side must put the ball in play (1) by bounding it on the ground ; (2) by passing it out at right angles to the touch line; or (3) by carrying it out at right angles to the touch line any distance not less than five nor more than fifteen yards, and then putting it down for a scrummage, first stating how far he intended to walk out. If the ball rolled or was kicked out of bounds, the first player touching it down could put it in play in the manner just described.

A " fair catch" was made by a player who caught the ball from a kick, and in so doing made a mark on the ground with his heel. Such player was then privileged to make a dropkick, punt, or to hold the ball for a place-kick, at a convenient point behind his mark, at which the opponents were allowed to take their position. As soon as the ball touched the ground, or was kicked, the opponents were free to "charge," i. e., rush forward to tackle the man with the ball, or stop the kick.

Furthermore, no player could deliberately hit the ball with his hand, or throw it forward (i. e., in the direction of his opponents' goal). No hacking or tripping was allowed, nor were players permitted to wear projecting nails, iron plates, or gutta-percha on any part of the boots or shoes. The time of the game was divided into two parts. During the intermission the two teams changed goals, and the kick-off at the opening of the second half was made by the side not having the kick-off at the commencement of the game.

The decision of disputes could be made by umpires chosen by the captains of the contesting teams, though the presence of these arbiters was not a fixed custom, but any question as to the interpretation of the rules was referred to the Rugby Union Committee.

Development to the Present Day. The development of the game from the adoption of the Rugby Union rules to the present day can be divided into three general periods: (1) tight scrummage and heavy forwards; (2) loose scrummage ; (3) introduction of quick and frequent passing.

It will be noticed from the rules above described that the forwards were bound to become entangled in the scrummage and so not be ready, in the event of the ball rolling out, to follow up the play with much activity. On the contrary, the requisites of a forward were weight and force. He should be a good scrummager and nothing else. In entering a scrummage, he shonld keep his eye on the ball, and try to push it towards his opponents' goal, advancing it by gentle kicks from the toe or shins. The team whose forwards were best able to "shove" was thus at a premium. In case a side failed in shoving, it was evidently advantageous for them to allow the ball to be kicked out into the hands of one of their "behinds," who thus would have an opportunity to gain ground in a run. The principle of "heeling out" the ball by a gentle backward kick would here be expedient, but for some reason or other a strong prejudice has always been felt against this mode of play as being mean and tricky. It was, however, perfectly legitimate for a forward to open his legs, and allow the ball by accident to be kicked between them.

It was soon appreciated that much time and strength was uselessly spent by the forwards in these aimless shoving matches. The greater part of the tackling and defensive work as well as the offensive work in kicking and running fell upon the behinds. The play was entirely individual, and contained almost no science.

The first step towards an improvement was taken in 1877, when at the request of Scotland the number of men on a team was reduced from twenty to fifteen. The positions of the players were generally assigned as follows: ten forwards, two half-backs, and three backs. The half-backs were intended to hold a position close to the scrummage, and capture the ball if possible, when it rolled out, or to fall upon an opponent who might capture it, while the backs were the ground gainers and kickers. With this diminution in the
numbers a more open style of game naturally followed, and the forwards were chosen for activity in leaving the scrummage and falling upon the opposing half-backs. For this reason these players were obliged to pick up the ball, and pass it with extreme quickness, and some of the best players were able to combine the two motions into one scoop. The advantages of dribbling were gradually felt to be important, and the forwards were required to be proficient in this re-spect also.

The Oxford Team and Short Passing. The Oxford team of 1882 was the first one to develop the art of passing to any great extent, and as a result were victorious over the best clubs in the country during three successive seasons. The behinds would station themselves at intervals across the field a short distance behind the scrummage, and by a series of quick short passes, the ball could be advanced to the end man, who then found a clear field for some distance before him. A few teams have since then successfully combined the two feats of passing and dribbling, and attained to a remarkable degree of skillfulness. These principles of the game are still discussed by captains, and the question has not yet been answered as to how far such tactics can be carried with expediency. The assignment of the fifteen players has undergone several changes. The position of three-quarterback has been developed, and the number of forwards reduced to eight or nine men. Some teams play with three threequarters, and others with four, while one full back is considered sufficient. He is a purely defensive player, and must be a sure tackler and accurate kicker. The three-quarterbacks have most of the active and prominent work to do, running, tackling, and kicking.

Rules, Ruling, and Scoring. With the gradual development of the Rugby game from a school pastime to the present stage of the sport, many rules have been adopted from year to year, calculated to remedy, as far as possible, all visible defects. In 1892 the code of Union laws became so confused and complicated, owing to these frequent amendments, that an entirely new set of rules was drawn up. According to this code the ball is required to be 11 to $11 \frac{1}{4}$ inches
in length, 30 to 31 inches in length circumference, $2 \tilde{5}_{\frac{1}{2}}$ to 26 inches in width circumference, and 13 to $14 \frac{1}{4}$ ounces in weight. All games must be played with a referee and two touch judges, - the former to enforce the rules, the latter to render decisions regarding out of bounds. Matches are decided by a majority of points, the following being the mode of scoring : try, 2 points; penalty goal, given by referee owing to unfair play of opponents, 3 points; goal from a try (in which case the try does not count), 5 points; any other goal, 4 points. In regard to eligibility of players, the following rule has been enacted: "It is illegal for any member of any club in England in membership with this Union (a) to take part in any match or contest where gate money is taken, unless it is agreed that not less than fifteen players on each side take part in a match; (b) to play between May 1 and August 31, both dates inclusive, in any football contest, either for charity or otherwise, where gate money is taken."

The Association Game. The Association game, although not so important to students of the American game, is worthy of study as a contemporaneous sport. As already noted, it was established under regularly drawn up rules in 1863 . It was not, however, more than a school pastime till 18i2, when the international matches and cup ties were established. During its entire history the sport has demanded very skillful and careful playing, but the advantages of combined action and frequent passing were not appreciated till the middle of the serenties. The general method of play was for a certain number of the men to endeavor, by clever individual dribbling, to adrance the ball down the field towards the opponents' goal, and then kick it through the posts. When combined action was introduced, the men were assigned to certain positions, and had certain duties to perform. The division of the eleren players at the present day is generally made as follows: five forwards, who engage themselves in the most active part of the play, and should be clever dribblers; three half-backs, one playing in the centre and one on either wing, who should always hold a position between their forwards and their goal ; two backs, one on

either wing, who are intended to receive any kicks beyond the half-backs, and return them; and one goal keeper. This player must remain close to the goal, and if possible prevent the ball from passing between the posts. He is the only player who is allowed to use his hands in stopping the ball, but may hold it only long enough to make his kick out of danger.

A peculiar knack which some players of this game have adopted is that of "heading" the ball as it descends from a high kick. In this way the sphere can be returned very quickly without taking the time of an ordinary kick.

As the forwards advance the ball towards the opponents' goal, they try to work it towards the centre of the field, so that the middle forward may kick it between the posts. Passing and combined action have been developed to a considerable degree by Association elevens, and form now the characteristics upon which the success of a team depends.

Rules regarding kick-off at commencement of the two halves and after a goal has been scored are the same as in the Rugby game, also those against intentional rough play, hacking, tripping, etc. When a ball goes out of bounds, it is thrown into the field of play by a player of the side which did not kick it out. This must be done with both hands, and can be in any direction.

The length of a field for the Association game should be between 100 and 200 yards, and the width between 50 and 100 yards. The goals are upright posts eight yards apart, with a bar across them eight feet from the ground. A goal is the only score that can be made, and is obtained when the ball is kicked between the posts and under the bar. The ball used is round, from twenty-seven to twenty-eight inches in circumference, and should weigh between thirteen and fifteen ounces.

Australian Football. In Australia, football is universally recognized as the national game, and at the present day the popularity of the sport is quite remarkable, single matches often attracting an audience of thirty thousand people.

A generation back the game was at the same stage of
development as in England. Sydney and Melbourne were the leaders of this sport, as they are of everything else in Australia, and the former of these cities has always played the Rugby game, the necessary changes in the form of play being made in conjunction with those in England. But in Melbourne the general feeling has been that the English game was not fast enough, and as a result new rules were made and a very different form of sport, known as the "Victorian game," has been developed.

The field of play is from 150 to 200 yards long, and from 100 to 150 yards wide. The goal posts, being not less than 20 feet in height, are placed seven yards apart, and a goal is scored when the ball is kicked fairly between them at any height whatever. This is the only method of scoring, and hence constitutes the main object of the game. The ball is oval in shape, and 26 inches in circumference. The usual number of players composing a side is twenty, though more or less than this can be played if sufficient handicaps are allowed. The actual time of a match is one hour and forty minntes, and is divided into four parts, at the expiration of each of which the teams change goals. At the end of the second quarter the players rest ten minutes. These players have certain defined positions, and are supposed to remain in nearly the same locality during the entire game, the object being to advance the ball forward to the " goal sneak," who is an accurate kicker and should stand in front of the goal in order to accept any opportunity to score.

The ball can be advanced by kicking or ruming, provided in the latter case that the runner bounds it on the ground once in every seven yards. No tackling is allowed, but a runner is obliged to drop the ball as soon as he is touched by an opponent. "Shepherding," or protecting a player who is running with the ball from interference by opponents, is practiced to some extent, but if too many players thus are brought together into a tight mass the referee is bound to blow his whistle and stop the game. He then puts the ball in play by bounding it on the ground, this being also the method of opening a match and of bringing in the ball from out of bounds. The referee, in fact, has very wide privi-


Diagram C.-Australian Game.
leges, and must follow the play very closely. He can at any moment, when he sees any unfair or even ungentlemanly conduct on the field, stop the game and again bound the ball into play. He also has opportunities to indulge in great partiality for either contesting side, but as no man can occupy this official position who is not licensed by the Football Association, he has, as it were, a reputation to uphold, if he desires to retain his office. The tendency in this game is to develop quick, open play, in which skill and science shall have more value than strength and weight.

In the development of this new game the example of Melbourne has been followed by all Victoria, South Australia, and Tasmania, while Queensland and New Zealand are loyal to the Rugby Union.

Canadian Football. Football is played to a considerable extent in Canada, where the various provinces play different games. For instance, in Halifax, Winnipeg, and Victoria, the English Rugby Union rules are adopted, while the Ontario, Quebec, and Canadian Unions play under their own rules.

The Canadian game is played by fifteen men on a side, on a field 110 yards long by 65 yards wide. The goals are the same as in the English Rugby game. At the kick-off, which opens a game, the ball must be kicked at least five yards and must not fall out of bounds. When a runner has been fairly tackled and held, the ball is placed dead upon the ground and the scrimmage ${ }^{1}$ takes place. Any player of the side then having possession of the ball may put it in play by rolling it in any direction with his foot. In the mean time no opponent can interfere in this operation, which must take place immediately, or the side not offending may be awarded a free kick by the referee. This method of putting the ball in play is nothing but the unpopular custom in England of heeling out, which has been adopted as the simplest and quickest method of putting an end to the tiresome scrimmage. The ball when thus put in play may be picked up and passed to any other player for a run, kick, or any other

[^0]play. It is unlawful to engage in any umecessary rough play, or to knock or throw the ball forward (except when thrown in from touch) under penalty of disqualification or award of a free kick to the moffending side.

The matches are decided by a majority of points which can be scored as follows: goal from a try, 6 ; from dropkick, 5 ; from flying or free kick, by way of penalty, '2; from free kick, 4; a try without the goal, 4; safety touch, 2 ; and rouge, 1. "Safety touch" and "rouge" are the only points which need to be explained, the other terms having been already mentioned in descriptions of other games. Safety touch is similar to the American "safety," and a rouge is like the American "touch back," i. e., the former is a retreat from danger and performed by the side defending its goal, while the latter is merely the result of a kick by the opponents passing over the goal line without making a goal. The time of a regulation game is two halves of forty minutes each, an intermission of ten minutes being left between them.

Gaelic Football. Gaelic football, which has been played for several centuries as one of the most popular sports in Ireland, was known only traditionally to existing generations until November 1, 1884, when, as a result of the general revival of the national games, the Gaelic Athletic Association was formed at Thurles, County Tipperary. Four years later a delegation of athletes was sent to Anerica, and in spite of setbacks at first, their efforts to establish clubs in the neighborhood of New York city were ultimately successful. Since then the game has penetrated to the west, and by 1893 the Gaelic Athletic Association of America included over a dozen clubs.

This game is played on a comparatively large field, exceeding 140 yards in length and 84 yards in width. The goals, situated in the middle of the end boundary lines, consist of two upright posts twenty-one feet apart, joined by a crossbar eight feet from the ground. On either side of these goals is erected another post at a distance of twenty-one feet. In order to score a goal, the ball, which is spherical in shape, must be kicked between the centre posts beneath the cross-
bar. If it crosses the goal line between the outside posts, one point is counted, and in case the goals of a match are evenly scored by both contesting teams, a majority of these points decides the match.

The regular Gaelic football team of fifteen men is composed of the following players : one goal keeper; two full-backs; two half-backs; three centres; two wing centres; two forwards; two wing forwards; and one full forward. These men occupy relative positions on the field as indicated by their titles. The only allowable methods of advancing the ball are by kicking, striking, or "hopping." This latter trick is performed by a player who, as he runs, bounds the ball on the ground before him at least once in every three paces. The ball is put in play at the opening of the game and after the scoring of a goal, by the referee, who throws it in from the side, the men of the two sides having lined up opposite to each other, each one holding the hand of an opponent. When the ball strikes the ground, all drop hands and rush for it. From thence on there is no cessation in the play until a score is made, except when a foul occurs. If a player be detected in committing any unfair or unnecessarily rough action, the referee may either disqualify him or award a free kick to the other side, according to his own judgment.

A free kick is also awarded to a player making a fair catch, in which case the opponents are not allowed to approach nearer than fourteen yards to the " marked spot," and the kick can be made in any direction desired. When the ball passes over the goal line outside of all the posts, the goal keeper has a free kick, his opponents lining up at a distance of twenty-one yards from the line. When the ball goes out of bounds on the side of the field, it is thrown in in any direction by the opposite side to that which last touched it in the field of play.

The play in a regular Gaelic match lasts during two halfhour halves, with an intermission of ten minutes, when the goals are changed, and is governed by two umpires and a referee. In case of disagreement between the former, the decision of the latter is final. The referee also keeps the
time, and can call the game at any moment on account of darkness or unfair play. The validity of goals and points is decided by goal umpires, one at each end of the field.

This game as a whole is founded upon very simple principles, and is so full of action and life that it is very interesting, even to a spectator unacquainted with all the rules.

Thanksgiving Day Football of New England. The oldest phase of the game of football as known in the United States was when the inhabitants of New England, several generations ago, used to adjourn to the back yards of their houses, after the proper discussion of their Thanksgiving dimners, and the men of the party would amuse themselves by kicking about an inflated pig's bladder amid great joy and enthusiasm from their audiences. This innocent form of the game was, however, soon followed by the development of a crude and rough sport, which claimed some similarity to the English kicking or dribbling game. Rules, if they existed, were merely local, and knotty points had to be discussed and decisions made upon the field of play and at all times during the game. As such a pastime the game was played to some extent by the students at the various colleges.

Freshman-Sophomore Matches. At Yale an annual match between the Sophomores and Freshmen was a regularly instituted custom after 1840 , the challenge and its acceptance being posted in a prominent place upon the door of Old Chapel. Such games, as described by eyewitnesses, were almost open riots, and resembled the more lately established annual rushes between these classes more than the modern form of football. The students fought with each other as much, if not more, than for the ball, which is described as "a round bladder ball inclosed in a leather case."

The challenge and acceptance for the last of these matches, between the classes of 1860 and 1861, read as follows : -
"Sophomores, - The class of '61 hereby challenge the class of ' 60 to a game of football, best two in three.

In behalf of the Class of '61."
The answer: -


Diagram D. - American Intercollegiate Game.
"' Come!
And like sacrifices in their trim, To the fire-eyed maid of smoky war, All hot and bleeding we will offer you.'
"To our youthful friends of the Class of ' 61, - We hereby accept your challenge to play the noble and time-honored game of football.

> In behalf of the Class of '60.'

After that year the faculty put a stop to these annual matches.

Quiescent Stage of American Game. During the following years, until 1870, football was practically dead at Yale. The class of '72, however, was very fond of all athletic sports, and participated especially in long hare and hound runs. The revival of football was due in a large measure to Mr. D. S. Schaff, formerly of Rugby School, who entered the class of ' 73 , and succeeded in making the sport popular among his classmates, and eventually formed an association which sent challenges to the other classes. In 1871, four interclass matches were played upon a field at some distance from the college.

By this time other colleges had adopted the sport in the same crude manner, and some matches were played by them. In October, 1873, a convention was held at New York between Columbia, Princeton, Rutgers, and Yale, a set of rules was adopted, and thus was laid the foundation of the regular intercollegiate matches.

## CHAPTER II

FXPLANATION OF THE GAME AS NOW PLAYED
Introduction. There are many persons unacquainted with the game of football who desire to so far comprehend the rules of the game as to be able to understand the general points of the play, and follow intelligently the operations on the field. They do not care to enter into a scientific study of the game, nor do they wish to be burdened with the minor details of the rules. They want merely to be told, as clearly and briefly as possible, the primary points of the play, leaving all technicalities to a later period, when their interest in the game may have advanced to the stage of enthusiasm.

There is, therefore, a legitimate demand for a brief, abridged explanation of the game as now played, which shall necessarily be inadequate, and in no way attempt to embody all features of the rules. The reader who wishes to gain a more complete knowledge upon the minor points in detail should refer to a later chapter, in which the rules of the present season are given.

The Field. Intercollegiate football, which this book will especially consider, is played on a field 330 feet long and 160 feet wide. The field is inclosed by a white border line, and whenever the ball goes outside of this boundary the play ceases until it is returned into the inclosure. The spectator will see, beside the boundary lines of the field, a large number of white lines crossing the field, each five yards apart. These lines are merely an aid to determine how far the ball is carried forward or backward.

The Ball. The ball is a rubber bladder, inclosed within a sack of pigskin; by means of a pump, the bladder is inflated with air up to the limit where it completely fills the
pigskin sack, and when the pressure reaches a high point, the mouth of the bladder is securely tied, the pigskin tightly laced, and the ball is ready for use. It is then practically as hard as a block of wood, yet of almost no appreciable weight.

The Players. The game is played by two teams, of eleven men each. As the only object in the game is to advance the ball, these eleven men are placed in positions which experience has shown to best meet the varying needs of the situation, within the requirements of the rules. A forward line of seven men is made, and the ball is given to the centre man of this line. This line of seven men is called the rush line, and the centre man, to whom the ball is given, is called the centre rush, or the centre. The two men at the ends of the line are called the end rushers, or the ends. The two men located next the centre (one on each side) are called the guards, for the reason that they guard the centre each time the latter puts the ball in play. The two remaining men in the line, located respectively between each guard and each end, are called the tackles. The name is a purely arbitrary one, and not especially significant or well chosen, but it serves as a title by which the position may be designated. To the name guard, tackle, or end, we prefix the words "right" or "left," according as the man stands on the right or left of the centre-rush. The line, then, reading from left to right, would be as follows : left end, left tackle, left guard, centre, right guard, right tackle, right end. So much for the rush-line, or, as they are sometimes called, the forwards.

There are now four men of the eleven left, and they are assigned and named as follows: First, the man placed directly behind the centre is called the quarter-back. His business it is to receive the ball as the centre sends it back, and pass it to the player who is to attempt to carry or kick it forward. Behind the quarter-back, in a somewhat extended triangle, are three men known respectively as the left half-back, the right half-back, and the full-back. The full-back stands in the centre of the trio, and usually is the man who kicks the ball when a kick is desired.

The team occupies substantially these same relative positions, whether they are advancing the ball or opposing the advance of the other side. In the latter case, however, the full-back of the team, and possibly one other player, are located some distance behind the line, to secure the ball in case it should be suddenly kicked by the opposing team.

General Object in the Game. The object in the game is to advance the ball from the centre of the field, where it is started, until it can be touched to the ground beyond the boundary line at the end of the field. This is called a "tonch-down."
The two teams line up for the game at the centre of the field; the captains of the teams have previously tossed a coin to see which captain shall have his choice between having the ball or deciding on which side of the field he prefers to play. The captain wimning the toss may elect to take the side of the field which will bring his back to the sun, or give him the help of the wind; or he may elect to take first possession of the ball. Whichever he decides, the other tean must take the alternative ; if he chooses the field, they receive the ball; should he take the ball, they may choose either side of the field.

The game is divided into two periods of thirty-five minutes each, with a ten-minute interval for rest between the two periods. Whichever side takes the ball at the opening of the first half must yield it to the other side at the opening of the second half, and the two teams likewise change sides upon the field at the opening of the second half. This is in order to give each team the benefit of any wind that may be blowing, and divide the disadvantage of uneven ground, or any adverse conditions associated with either side of the field.

Divisions of the Field. Before begimning the actual movement of the game, let us explain here that the last boundary line behind each team is called their goal line. On the centre of each of these goal lines two posts are erected with a cross-bar of wood between the posts, at a height of ten feet from the ground. The posts themselves are $18 \frac{1}{2}$ feet apart. The white lines, which we have previ-
ously mentioned as being laid out across the field at intervals of five yards, may now be more clearly designated. The one five yards from either goal line is called the fiveyard line of the team playing on that half of the field. The next is their ten-yard line; the next their fifteen-yard line; then comes their twenty-yard line, twenty-five-yard line, and so up to the centre of the field. It is not customary, however, to make use of this method of designation after we have passed the forty-yard line, and, indeed, the terms are rarely used to designate any distance more than twenty-five yards from the goal. Beyond twenty-five yards from either goal line, the space is generally designated as "A's territory," or "B's territory," or the centre of the field (A and B being here used to designate the names of the two respective teams).

The Game Opened. The game opens with the ball in the centre of the field. The side which has the ball brings its men up on a line with the ball; the opponents must retreat at least ten yards back from the ball. As the two teams stand in this position, the referee blows his whistle as a signal for the play to begin. The game must be opened by kicking the ball from the centre of the field, and the object in this case is only to kick it as far as possible. By the rules of the game, whenever a ball is kicked, it must be kicked at least a distance of ten yards into the opponents' territory, and it cannot then again be touched by the side which has kicked it until it has touched the person of some player on the opposing side or until the person who kicked the ball has gone down the field and reached a point on a line with the distance the ball has traveled. His action in going down the field in this manner puts his entire team in a position technically known as "on side," and they may then touch the ball before their opponents, if they are able to do so. The opponents, who have probably secured the ball themselves from this initial kick, are not required to kick it back, but may, if they prefer, attempt to rush or run the ball back by giving it to one of their own number to carry down the field. Their method of putting the ball in play will be by what is known as a "scrimmage," and as the ball is put in play at all times
in this manner (with the single exception of the opening effort, which is repeated at the begimning of the second half, or whenever a score has been made), it may be well to describe the scrimmage.

A Scrimmage Described. The ball is placed in the hands of the centre-rush; he places it upon the ground, bending over it and holding it by one hand. The teams take their positions. The quarter-back, as the commanding general, issues his instructions, telling his men what particular movement or attack shall be made to advance the ball. These instructions are given by figure or hand signals (usually the former), and are always known as the "signals." The quar-ter-back calls the signal, and usually repeats it once or twice, that every member of the team may be familiar with it. Each team has its own signals, and they are, of course, unintelligible to opponents.

The ball is then snapped back by the centre into the hands of the quarter-back, who instantly passes it to the member of the team who is to run with it. The remainder of the players block their opponents in any effort they may make to reach the rumner, and if this "blocking-off" of an opponent is done in the rush-line, it is called "blocking; " but if it is done immediately in front of the person of the runner, it is called "interfering for the runner," and the body of players who run with the runner, as a sort of bodyguard, are called his interferers, or the interference.

The other side, striving to check the advance of the ball, endeavor to get at the runner, to prevent his advancing. Their primary object is to secure the ball itself; but as this is usually impossible, the most that can be done is to check him by tackling him and throwing him to the ground, where he is then held ; and the referee's whistle instantly blows to indicate that no further advance of the ball by this operation may be made.

First, Second, and Third Down. The referee's whistle always stops the play after each scrimmage, and the ball is not in play again until the two teams have been lined up and it has again been snapped back by the centre, as before described. Each of these efforts to advance the ball is
called a "down;" and unless the side having the ball can advance it five yards in three consecutive downs, the possession of the ball must be given to the other side. It follows naturally, that if the first two efforts, or downs, are not productive of their full proportion of the five yards distance, the third effort will be a kick, which is a virtual relinquishment of the ball. If, however, the first two efforts have resulted in a good proportionate advance, the team will doubtless continue the rushing game, and avoid a kick as long as possible, in order to thereby retain possession of the ball, since no ground can be gained without possession of the ball, and to kick is to practically relinquish it.

As to the Runner. The handling of the ball by the quarter-back, between the centre-rush and the runner, is made necessary by a rule of the game, which provides that the ball must have touched a third player before any attempt can be made to advance it, and that until such time it shall not be carried or moved forward. Hence the quarter-back is unable to run with the ball himself, and the same prohibition applies to the centre-rush, although, if the ball were passed later to either of these players, this restriction would not be operative. It is also a rule of the game that the ball shall never be thrown or passed forward from one player to another, and any forward pass counts as a misplay, with penalty of loss of the ball.

Penalties of the Game. There are various minor restrictions in the rules, and some of these restrictions are protected by a penalty. The most important of these restrictions, and the penalties which attach to them, are as follows:-
(a) No player, when the ball is about to be put in play, shall advance beyond the line of the ball. If he so advances, he is designated by the umpire as off-side, and should the ball be put in play before he retires behind the line of the ball, his side must pay the penalty. This penalty is usually loss of the ball, if they have the ball in their possession at the time the offense occurs, or a loss of ten yards of distance if the ball is not in their possession. A liberal construction of this rule will often lead an official to avoid giving this penalty, if the player who is off-side, realizing his mistake,
does not attempt to take any active part in the manœuvre, and in no way participates in the play.
(b) The use of the hands or arms to hold or detain an opponent is prohibited to the side which has the ball, and the players of that side (the rumer only excepted) can obstruct the progress of their opponents with the body only. But the players of the side which has not the ball can use their hands and arms to push their opponents out of the way in breaking through, though they are rigidly prevented by the rules from laying their hands upon, or using hands or arms to interfere with an opponent in any other way or at any other time, unless that opponent has the ball. The violation of any of this class of rules is generally designated as "holding," and is visited with the same punishment prescribed for off-side playing, namely, loss of the ball, or loss of ten yards of distance.
(c) Other general violations of rules are, intentional tackling of a player below the knees; striking with the closed fist; throttling, tripping up, or unnecessary roughness of any description. No player is allowed to wear projecting nails or iron plates on his shoes, or any metal or greasy substance on his person. No player, when off-side, is permitted to interfere with an opponent who is trying to catch the ball after a kick.

Methods of Scoring Points. There are four ways in which points may be scored: to carry the ball across the opponents' goal line, and touch it down on the ground is known as a touch-down, and scores four points for the side accomplishing the feat. Any touch-down gives the right to have what is commonly known as a "try-at-goal," which is effected by bringing the ball back into the field, on a line with the point where it was touched down, and making an effort to kick it from any point on this line, over the bar between the goal posts. If this kick is successfully accomplished, the touch-down is said to have been converted into a goal, and two more points are added to the score.

A goal may also be obtained by a kick direct from the field, provided this kick is not a punt. The usual method of making this attempt is by what is known as a drop-kick,
which consists of dropping the ball to the ground and kicking it the instant that it rebounds. If the ball from such a kick passes over the bar between the goal posts, it is called a goal from the field, or a goal from a field kick, and counts five points to the side making it.

The only other method of scoring is a negative method, by which the side having the ball loses two points, and makes what is technically. known as a "safety." This is accomplished when a player, having received the ball from a player of his own side, touches it down behind his own goal line. This comnts two points against the side making it, and is only resorted to as a means of relieving the pressure of a fierce attack, and possibly preventing the opponent from making the larger score of four points by a touch-down. The result of a safety is that the side which has made it is given possession of the ball, and allowed to kick it from any point up to their own twenty-five-yard line. On this twenty-fiveyard line the opponents line up, and the kick must be made at some point which will lift the ball over the heads of the opponents. The ball is, accordingly, kicked from about the fifteen-yard line, and if this kick is successful, the immediate threatening of the goal by the opponents is brought to an end.

The Ball out of Bounds. If at any time the ball is kicked or carried across either side boundary line time is immediately called by the referee, and the ball is then strictly out of play. It must be brought back by the side gaining possession of it, to the point where it first crossed the line, and there it is usually the custom for the team to take advantage of the rule permitting it to be brought back into the field a given number of yards, and the ball is so brought into the field, and placed down for a scrimmage.

Concluding Definitions. This brief explanation of the game may, perhaps, be best concluded by defining a few of the common expressions in the game:-

A fair catch is made when a player, on catching the ball, advances either foot, and points his heel into the ground. He does this to signify that he will not make any attempt to run with the ball, and it protects him from being tackled and
thrown. The making of a fair catch gives a team the privilege of putting the ball in play at that point, either by a scrimmage or a free kick. In the latter case, the side making the catch kicks the ball from that point, and the opponents cannot advance nearer that mark than ten yards.

A punt is an ordinary kick of the ball, made by letting the ball fall from the hands and kicking it before it touches the ground.

In touch means out of bounds over the side boundary line.
There are three officials: an umpire, who decides upon the conduct of the players ; a referee, who decides all questions relating to the movements of the ball; and a linesman, who marks the distance gained or lost by each down. Substitutions of one player for another may only be made when a player is too seriously injured to continue the game.

A line-up is the grouping of the players for any play or movement. The side which has the ball is restricted by the rules from lining up too closely massed together, and the old form of wedge plays and the more recent momentum plays are not now permitted.

## CHAPTER III

## FINER POINTS OF THE PLAY LIKELY TO BE OVERLOOKED

A Higher Appreciation. In another chapter we have described fully how to watch a game from the ordinary standpoint. There should, however, be some special hints given in order to enable the spectator to appreciate some of the finer points which are likely, otherwise, to escape observation.

Advantages of Present Uniforms and Accessories. Before taking up the points of the play, a few suggestions as to accessories may, perhaps, awaken additional interest.

In the first place, the uniforms, which would hardly attract attention save as rather soiled and badly fitting garments, are the product of considerable study. The original uniform consisted of tight-fitting jerseys, and tight, as well as rather thin, knickerbockers. There was no padding whatever, and nothing to break the force of falls. The first step in reform was the adoption of the canvas jacket worn over the jersey. The first team to adopt these had them greased as well, in order to make them more difficult to hold. The players who were obliged to tackle these men in canvas jackets thereupon put resin upon their hands, and later an especially sticky substance called Venetian turpentine. It was not long before a rule was passed forbidding the use of sticky or greasy substances on the person of the player.

The next reform in uniforms was in the line of padding, and the trousers or knickerbockers we see to-day are practically loose bags heavily padded at the knees and thighs. Padding is also being used more or less in the jackets and jerseys. There are also many appliances in the way of shin guards, nose guards, and other parts of armor, but there is a rule that forbids the use of any metal substance on the per-
son of the player, so that such armor as is used is supposed to be of a material that will not injure the opponents. There are also individual appliances of all kinds, both as a prevention and as a cure of injuries, - ankle supporters, knee caps, and the like. The shoes have small blocks of leather fastened to them, taking the place of spikes, in order that the rumer may not slip.

A leather uniform was brought out three years ago, and is undoubtedly a valuable help on a wet day, as the cloth uniforms absorb so much water as to be very heavy before the game is finished.

How to Judge the Preliminary Actions. To come to the play: If one watches the kickers and catchers on the field before the game commences, he sees that they are, both in catching and kicking, changing their positions, and are constantly watching with care the flight of the ball. These men are endeavoring to discover the force and direction of the wind, in order to make proper allowance for it, and also, in case of winning the toss, to tell which side to choose.

Watching these kickers and catchers, it is not a difficult matter to pick out the best of them by the ease with which they swing at the ball, and the way in which they handle it. A good man is apparently taking things very easy, but for all that his work is clean. When he kicks, as soon as his start is made, his swing increases in speed, and he drives the ball with a little side swing that adds many feet to its progress.

As soon as the game starts, the first point of interest to be noted is, as described in another chapter, the line-up of the side which is to receive the ball. The strategy of the opening play lies in the kicking side placing the ball in the most inconvenient spot for the opponents to return it either by a run or a kick. On the other hand, the side that receives the ball arranges its men so as to prevent the kicking side from landing the ball in any place where it cannot be returned a considerable distance.

What to Watch in a Scrimmage. A Stiff Line. The points to be noted in a scrimmage are many. Chief, perhaps, among them is the relative superiority of the two lines.

Some idea of this can be gathered by the spectator from the relative "stiffness" of the two. This is a term which indicates the ability of one line to stand up against the other, and hold their own or even push the opponents back. If the spectator will glance along the line just as the ball is snapped, he will speedily learn to judge which of the two lines yields the most in the scrimmage. And almost without exception the team which is the stiffer in the line will prove the superiority of its forward play during the game.

The second point to be noted in a scrimmage is of similar character, and that is the ability of the men on the defense to break through and smash the interference or reach the runner before he gets up to the line upon which the ball is down. The line which can do this will make it very uncomfortable for both the interference and the runner before the game has ended.

Good Quarter Play. When one realizes that every instant gained between the time of putting the ball in play and the time of landing it in the hands of the runner is of the greatest value, he can and will watch with more interest the motions and playing of the little quarter-back. The sharper the play just behind the scrimmage in this respect, the better the game. Another point of superiority in the quarter-back is his ability to pass the ball and get into the interference as well. The spectator will see a good quarter receive the ball and actually get started on his run at the same moment that he passes it to the runner.

How to predict a Kick. It is not always easy even for the umpire to be sure when a side is going to kick the ball. They may kick it on the first down, the second down, or the third down. Of course, a great many kicks are made on the third down, because that is the last chance, but it is now by no means unusual in good teams to see kicks made much earlier than that.

Probably the best way for the spectator to judge whether a kick is to be made is to watch the opposing full-back. Owing to the fact that it is almost imperative for him to know when a kick is to be made, one can rest assured that his powers of observation are probably the best of any one's
on the field. If the spectator, therefore, will glance at him when the lines are drawn up, he will be greatly aided in judging this point, for he can make up his mind that as soon as the full-back commences to run back there is likely to be a kiek by the opponents. Of course, there are other indications which foretell a kick, as the stepping back, and separating of the backs on the side holding the ball, and, in close formations, the hasty running back of the full-back on the side holding the ball. It is impossible for any one to tell certainly when a quarter-back kick is to be made, but an occasional glance at the end rushers is the best way to find out what the intention is. An end rusher will usually drop back farther for a quarter-back kick, and will go out toward the end on an ordinary kick.

What constitutes Good Play by End and Tackle. In watching the play of the line it should be observed that a good end will protect the side of the field carefully against any runs when he is on the defense, and will at the same time shoot in and seize the runner after the tackle has broken the interference. A poor end, on the other hand, is apt to hug the edge of the field and be undecided about the time when he should go in. In judging the quality of an end the spectator should also take into consideration the speed with which he gets down under kicks. An end ought to be always by the side of, or in front of, the man who eatches the kick. That is his first duty, and clever men will almost always accomplish it, in spite of the attempts of the opponents to stop them.

A good tackle is one who breaks through his opponent and reaches the interference or the runner before either gets to the line. Good blocking is the kind that prevents just this breaking through of the tackle. A man is not allowed to use his arms or hands in blocking when his own side have the ball, and hence it is particularly interesting to see how he accomplishes the feat of holding his opponent back.

Good Interference. Good interference is the kind that moves rapidly ahead of the runner with the ball, so that he does not have to slow up to prevent his over-rumning it, and which yet holds its formation securely.

A Good Run. Never be deceived into thinking a good run has been made when the man merely goes across the field. Many an otherwise good player loses his chance to get on a'Varsity team from the fact that he runs too far across the field, or even runs back. It is the advance that counts, and not the distance over which the runner passes, and the spectator should always bear this in mind, and he will not then make erroneous judgments about the quality of a man's playing.

Judicious Kicking. Good kicking is the kind which, while always high enough to enable the ends to get down under it, nevertheless gains a considerable distance for the side making the kick. In playing against the wind, kicks must necessarily be low and strong. In playing with the wind they should be high in order that the wind may get its full effect upon the ball. When the side is so near the opponents' goal that a kick will drive the ball across the goal line, either a drop-kick should be tried, or else a punt should be made over toward the side of the field, crossing the touch line before it does the goal line. For, if it crosses the goal line the opponents can bring it out twenty-five yards, whereas, crossing the side line, they must put it in play where it crosses the line, and it may result in their being obliged to make a safety. There is a good deal of skill displayed in this kicking, and the quality of a full-back or a kicking back should be judged considerably on his ability to do this.

A Punt-Out. The punt-out is a rather delicate proceeding and not often resorted to. To punt-out well a man should be able to land the ball so that the man catching it is considerably nearer, and in a more direct line with the goal. That is the only test of a good punt-out.

## CHAPTER IV

how to watcil a game
Watching the Practice if possible. Any one desirous of enjoying to the full, as a spectator, a football match should arrange to watch the practice of some team for a few days preparatory to viewing one of the important games. It is surprising how readily, in this way, the main points of the play impress themselves upon the on-looker.

But it is by no means always possible, and seldom practicable, for the average spectator to go through this preliminary preparation. For this reason the following chapter is offered for the benefit of the spectator who plans to see, as a very first experience, one of the big match games in the fall.

Preparing for the Game: Getting a Seat. The first thing to clo is to secure a seat. Here there is but one advice to give, and that is, get the best. By the "best" is meant a seat near the middle of the field, preferably rather high up on the stands, in order that people running along the side lines will not obstruct the view, and back to the sun. Avoid the top seat, however, because there is likely to be a cold wind that chills one to the marrow, and a good deal of this is escaped by sitting farther down. Dress warmly, and above all things wear easy, comfortable shoes, because even in moderate weather, sitting out in the late fall is cold work, and the feet are the first to feel the discomfort.

These may seem small matters of detail, but if you are going to watch a football game, the only way to get real enjoyment out of it is to be perfectly comfortable, or as nearly so as possible in your surroundings. Then you can give your undivided attention to the game.

Difficulty of appreciating the Skill exhibited. Without doubt, the spectator watching his first football match
feels a pleasurable excitement born of the very evident and easily appreciated struggle for supremacy going on between the two parties, but, so far as seeing any indications of special skill or design, it is likely enough that, unless his attention were called to it, he would not believe there was the least method in the apparently mad tumbling and pushing of the contestants. Football suffers, or rather has suffered, very much from the fact that it requires a knowledge of the game in order to be able to appreciate its real worth, both as a sport for sport's sake, and as a means of developing character.

We have already described the preparations that should be made in order to see a game. In the matter that follows we presuppose that the spectator has come prepared for enjoyment, and is comfortably seated, ready for the game to begin.

Why the Field is a Gridiron. The first things that attract the eye on entering the field are the white lines which divide it into spaces. The time was, and that only a dozen years ago, when there were no such markings, the centre of the field and two lines twenty-five yards from each goal being the only marks inside the field of play. But the game was beginning to suffer because there was too little progress of the ball, and it became necessary to enact a rule that a side must do something with the ball which should produce tangible results, or else give it up to the other side. The rule took the shape that a side must advance the ball five yards in three attempts or take it back twenty yards. Failing to do either, they must surrender possession of it to their opponents. - In order to readily determine these distances, the field is now marked with white lines every five yards.

Preliminary Practice. As the players come out upon this " gridiron" field, as it is called, they begin to practice, some kicking and catching, others passing and rolling the ball about, one after another dropping suddenly to the ground and clasping the ball in his arms. The men who are kicking and catching are probably the half-backs and backs of the team, for that is one part of their work when the actual play begins. Those who are "falling on the ball" are for the most part the big fellows of the team, and make up
the rush-line, or forwards. They fall on the ball in order to limber up, and because occasions to do this will offer in a game; and to secure possession of the ball and retain that possession is one of the chief factors in winning a match.

The Toss of the Coin. The two gentlemen in citizen's attire just coming upon the field are the referee and umpire, and the former calls the two captains of the opposing teams up to him ; they then toss for choice of position, as described in the preceding chapter.

The Line-up. As soon as the choice is settled, and the referee has given the word to line up, you can tell which side is to kick, because that side will line up at the centre of the field, while the others will spread themselves generously over the other half, no one being nearer the ball than a line ten yards in front of it. They spread out thus, in order to thoroughly cover the entire territory where the opponent is likely to kick the ball, for they must have a man wherever it can possibly come, to the end that the opponents may secure no immediate advantage. With a very strong kicker and against but little wind, the side having the kick-off will most probably try to drive the ball across the goal line on the first kick. It is of no avail to kick it over the cross-bar at kick-off, because the rules provide that on this occasion it would not score a goal, even if it did so cross the bar. But if there be a strong wind, or if the kicker be not sufficiently powerful to be reasonably sure of sending the ball over the line, the side having the kick-off will probably not attempt to send the ball as far as possible, but instead will kick it only a moderate distance - perhaps to the twenty-five-yard line - endeavoring to make rather a high kick of it. The reason for this is that they thus enable their own men to get down under it (for they cannot start ahead of the ball), and thus prevent the receiving opponents from ruming the ball back a considerable distance. This the opponents are sure to try to do; so at the kick-off it is especially interesting to note what disposition the captain of the opponents has made of his men.

Interference. He will endeavor to so arrange them that they shall not only be able to reach the ball quickly, no
matter where it be kicked, but also so that the player thus taking it may be very speedily protected by two or three others of his side who will interpose between him and the oncoming men of the side which has kicked the ball. This act of interposing to protect the man with the ball is called interference, and there is much of it performed during the progress of a game. It assists the runner by preventing the opponents from tackling him, and is legitimate so long as those who interfere do not use their hands or arms in performing this office for their runner.

When the kick-off is made, it is not considered good play by the recipient to let the ball fall to the ground, and take it on the bound, if it can be avoided, because more time is consumed than if it be taken on the fly, and so the opponents will have more chance to collect about the man taking the ball, and probably prevent the rum. More than this, it is impossible to tell in what direction the oval-shaped ball will bound, so that to catch the ball on the bound is a very difficult operation. Each side will avoid it whenever possible.

What the Recipient of the Ball May Do. A Fair Catch. The man who receives the ball may, if he chooses, make a fair catch, and take a free kick. If he does this, he will make a mark with his heel while in the act of catching the ball. It is not always good policy on taking the kick-off to thus " heel it," because the player can often gain more ground by running with the ball. Usually, therefore, we see the run with interference, as mentioned above. But the runner does not often make many yards before the opponents break through the interference, using their hands freely to do this, and bring down the runner.

A Down and Scrimmage. When this is accomplished, and the rumner brought to a standstill, or thrown upon the ground, so that further progress of the ball is prevented, the referee blows his whistle, and a down occurs, that is, the ball is put down for a scrimmage, and the ball is put in play again, as described in the previous chapter.

Attack and Defense. The snap-back sends the ball back with his hand, and at the same time he and his companions in the line will guard and protect the runner from
the attack of the opponents, who, at the moment the ball is snapped, endeavor to break through and reach the rmner. The real theory of defense lies nowadays in a very bold repulse; that is, in so precipitately breaking through the opponent's line as to prevent the rumer from reaching it with a fair start, and with his interferers well arranged. For if the rumer succeeds in getting this protected start into the line, he is reasonably sure to gain two yards or more, which means that in three downs or tries he will have advanced the necessary five yards, and can retain the ball for three more attempts. Hence the most frequently repeated feature of the game is the onslaught of the rushers, one side endeavoring to break through, and having the right to use the hands and arms in so doing; the other side resisting with all its power this fierce attack, and obliged to refrain from the use of hands or arms in repelling. Behind these rushers come, with swift advance, the interferers and the runner with the ball, making for a preconcerted opening which the rushers are trying to prepare for them in the line.

Kicks and Fake Kicks. Again the runner is finally brought to earth, and another scrimmage is formed, and so the play goes on until, either from inability to advance the ball, or because a kick seems advisable, the man who receives the ball from the quarter (or it may be directly from the snap-back), punts it, that is, drops it from his hand, and kicks it before it strikes the ground, sending it usually high in the air and well down the field, while his end rushers, and perhaps one or two others in the line, charge down the field, and endeavor to be upon the man who receives the ball in time to prevent his returning the kick, or rumning with the ball.

But it may be only a "fake" kick, that is, all the arrangements are apparently made for a kick, and then, just as the ball is snapped back, it is quickly passed to a man who stands close behind the line, and who endeavors to plunge through. Or it may be passed properly to the man who is evidently about to make the kick, and he himself then tries a run around the end of the line.

Drop-Kick. So the game proceeds in a succession of
downs or scrimmages, resulting in runs or kicks, until one side or the other succeeds in getting the ball within kicking distance of their opponents' goal. They may decide to try a drop-kick. The line forms exactly as above described, ex= cept that the half-backs go up into the line, too, it may be. Then the man who is to kick receives the ball and drops it to the ground in front of him ; just as it rises, he kicks it. To the inexperienced spectator it is almost impossible to tell whether he kicked it just after it touched the ground, or at the same moment as the impact. If he succeed in kicking it over the goal bar by this kind of a kick, it counts his side five points, and the opponents take the ball back to the centre of the field, and kick off again.

Kick-Out. If he miss the goal, the game proceeds as before, save that, if the ball goes over the goal line, the opponents may bring it out, and from some point inside the twenty-five-yard line kick out, that is, kick it as far away from their goal as possible, keeping it, however, within the bounds of the field. There is one exception to this, and that is, if the side threatening the goal try a drop-kick on a " first down" inside the twenty-five-yard line, the defenders can only kick out from behind the ten-yard line. This rule was made in order to put a premium upon drop-kicks, which are always popular and usually rare. But the temptations of the running game are still too strong, and drop-kicks are not more used than formerly.

A Touch-Down. If the players do not try the drop-kick, as above described, but persist in running with the ball, and at last are able to carry it across the goal line, they have scored a touch-down which counts them four points, and also gires them the privilege of an undisturbed try-at-goal, and this try, if successful, adds two more points to their score.

Try-at-Goal. Having secured the touch-down, the try-at-goal is made in one of two ways. The simpler is that in which a man of the side that has made the touch-down brings the ball out in his arms, making a mark on the goal line as he crosses it, and, after bringing the ball out, in a straight line, to such distance as he thinks proper, holds it for another of his side to take a place-kick at goal. The holder
does not put the ball on the ground until the kicker is all ready to kick it, and has secured his aim, because the defenders of the goal are obliged to keep behind their goal line until the ball tonches the ground; then they can charge at once.

Try by a Punt-Out. The second and more complicated method of trying for goal from a touch-down is by means of what is called a punt-out. This in reality is only a way of getting the ball more nearly in front of the goal posts for a kick, and is, therefore, seldom used, except when a touchdown is made quite well over toward the side line. When this is the case, a player of the side which has made the tonch-down brings the ball in a straight line up to the goal line, and there makes a mark with his heel, but he does not cross the line. Instead, he retires back from the line a step and a little distance away from the goal. His own men form not less than five yards out from the goal line, and it is to some one of them that he punts the ball for a fair catch.

The player who is to thus catch the ball stands as nearly over in front of the goal as he can go and yet render the kick and eatch reasonably safe. The defenders of the goal may line up on either side of the punter's mark at a distance of not less than five feet from that mark, but behind their goal line, and they cannot interfere with the punter until he actually kicks the ball. The man who catches the ball makes a mark with his heel while in the act of catching it, and that mark serves in determining the position of both sides exactly as any fair-catch mark. The rest of the kick at goal is the same as in an ordinary try.

Time of Game and Scoring. After a touch-down and try-at-goal, whether the goal be kicked or not, the ball goes back to the centre of the field, and is kicked off by the side against whom the touch-down has been scored. Thus the game proceeds for thirty-five minutes of actual play, time being taken out for delays of any nature, and also while the tries-at-goal are made, as well as at kick-out, kick-off, and free kicks. After this period of play, there follows an intermission of ten minutes, and then play is resumed for another thirty-five minutes. When the play is thus re-
sumed, the side which did not have the kick-off at the beginning of the match kicks off from the centre of the field. At the end of the second period of play, the side that has scored the most points (a goal from a touch-down counting six; from a field kick, five; a touch-down failing goal counting four) wins the match.

Officials and Fouls. In conclusion, a word about officials. There are three officials on the field. The referee, whom we have already mentioned as the one who tosses the coin for the choice of sides. He is "judge of the ball," as the expression goes; that is, he decides all questions of fact as far as the position and the progress of the ball are concerned. He also rules regarding interference with the snap-back, forward passing, and the quarter-back's running with the ball without first passing it, all of which are forbidden acts.

The umpire is the judge of the conduct of the players, and he calls all fouls with the exception of interference with the man who is to put the ball in play in the centre, forward passing, and running with the ball by the quarter-back, as before mentioned. The most common of these fouls or forbidden points are, interfering by use of the hands or arms, as already described, getting between the ball and the opponents' goal, piling up on the runner when he is down, interfering, when off-side, with the man about to make a catch, and all unnecessary roughness and brutality.

The third official is the linesman, who marks out the distances gained or lost. He usually walks along the side lines of the field, and it is customary for him to have an assistant.

All points not covered by the umpire, the referee has absolute power to decide.

## CHAPTER V

## EFFECTS OF THE GAME ON THE PLAYERS

Divisions of the Subject. The effects of football upon its players may be classed under two heads, physical and moral. We will take up briefly the benefits and detriments to the player, under each of these heads; restricting the discussion, however, to those factors which really belong to football, and not including the unquestioned evils and abuses which have connected themselves with the game as outside excrescences, nor the equally unquestioned advantages to the general public of a healthy interest in athletics.

Limitations of the Argument. As outside evils, the selection of a holiday, like Thanksgiving Day, for the date of a great match, to be played in a leading city ; the gambling which inevitably precedes the game, and the rowdyism which too frequently follows it, are not arguments against the game of football per se. They do not concern the player who plays the game on the campus of his academy or college, in a quiet country town. In the limits of this chapter, as defined by its title, we shall only discuss the personal effect of football, and not refer to outside or collateral effects.

Physical Advantages. It has been claimed that football lays undue emphasis on physical prowess; yet the benefit to the player from a physical standpoint will be found to be inferior to the benefits from a moral or mental standpoint.

The physical benefits, however, are very real and very important. No game develops so many muscles in a given time as does the game of football. No game so thoroughly develops the man, when it is properly played. The running,
dragging, pushing, dodging, vigorous struggle, up and down the field, is as well calculated to bring into activity the physical powers of the player as any exercise that has ever been invented. It has been repeatedly demonstrated by the physical directors at our leading colleges, that a large majority of the students who play football finish the season with greatly improved physiques. (See Note A at end of chapter.)

Official Proscription and the Strength Test. It would seem as though, in the face of this testimony, the case might fairly be rested without argument. It may be claimed, however, that the violent exercise of football is too great a strain upon many young men who attempt to play it. It must not be forgotten that the strength and vigor of young men varies greatly in proportion to their age and bodily measurements. Consequently, in view of the possible injury to a student from playing the game before he is strong enough for its demands, the authorities of nearly all the colleges and schools have for years insisted upon a physical examination of every candidate who desires to play football, and have prescribed by strict regulation the strength and capacity which a student must attain before he can be permitted to play.

This precautionary measure is of the greatest value, for it is true in football, as in many other things, that what is one man's meat is another's poison; and the sport which healthy young men may play with comparatively little danger, and with every prospect of deriving benefit therefrom, cannot be undertaken by weaklings or invalids, whose courage and zeal are often in excess of their bodily ability.

A Common Error. We must not make the error of judging the strain upon the football player by a comparison with our own physical abilities, unless we keep constantly in mind the great difference in strength and endurance between a person undergoing a course of football training and one of the same size, age, and weight who is not accustomed to vigorous exercise. This difference may be fairly represented by the ratio of $3 \frac{1}{2}$ to 1 . In other words, the player in training has $3 \frac{1}{2}$ times the strength and endurance of the
student who does not take vigorons bodily exercise. (See Note I) at end of chapter.)

Physical Disadvantages. The physical disadvantage of football is the liability to injury, resulting partly from accident, and partly from injudicious methods of training.

Injuries from Accidents. Accidents in football are of much less frequent occurrence than is popularly supposed, for only those who follow the subject closely have any realization of the large number of students at all our schools and colleges who are playing football, and the relatively small number of accidents. If we take a single college like Harvard or Yale, we shall find that the 'Varsity squad alone is composed, in the earlier weeks of the season, of as many as four separate elevens, and will nearly always number as many as forty players. Added to these are four class teams, each composed of two elevens, making eighty-eight more players, or a total of one hundred and thirty-two. Yet even this falls short of the number who are playing the game at any one of the larger colleges. Harvard alone grants from 175 to 200 permits to play football every fall.

Considering the thousands of young men in our schools and colleges, as well as in the many athletic associations, and those in all our country towns who are playing football, it is not surprising that some injuries are received. But the fact that the serious injuries are so few, considering the violence of the exercise and the number of clances for accidents, is itself an evidence of the strong physique which the game bestows upon the player.

A Comparison with Other Sports. It must be conceded that the maxim of "nothing venture, nothing lave" applies to football, as to all other sports. The increased bodily vigor must be purchased by bodily activity, and this involves a certain degree of bodily risk. Yet the injuries in football have been greatly overestimated by the newspapers, and are much misunderstood by the public. It can be proved that there is an equal element of danger in most sports and pastimes, just as there is a chance of injury in many of the simplest daily duties and occupations. There have been serious injuries from the feminine games of croquet and
tennis; while the accidents from such legitimate amusements as bowling, sailing, baseball, cricket, rowing, horseback riding, coasting, shooting, swimming, lacrosse, and golf are in quite large proportion to the numbers of those engaged in them. What man is there who has not, as a boy, suffered accidents in such amusements? To prove that football is a dangerous pastime, it is first necessary to prove that not only is the proportion of accidents in football in excess of those in other sports, but that such accidents are necessarily incidental to football as it is played at the leading colleges of the country. (See Note C at end of chapter.)

The Real Source of Danger. It must be borne in mind that the liability to injury in football increases in proportion to the youth of the player, his inexperience, and the lack of intelligent precautions, with the absence of proper methods of training. Just as the driving accidents in Central Park are in large proportion confined to persons who do not know how a horse should be harnessed or driven, so the great majority of injuries in football are scarcely accidents, but the natural occurrences among those who have never prepared for the game by proper training. No young man is fit to play football until he has been thoroughly coached, and knows how to attempt the various movements he may be called upon to perform, in a way which shall not be harmful to him. When properly coached, he may, without the slightest risk, do many things which would be distinctly dangerous for one who had not had the benefit of this instruction.

An Exaggeration. One other point must not be overlooked. Football has been prominently before the public eye; it has been a bone of contention, and has aroused exaggerated feeling in both parties to the conflict. In all this dispute the law of proportion has been as much violated as in the public discussion of certain rare and exceptional diseases (as hydrophobia), which have both here and abroad led to most extraordinary legislation, with many remarkable schemes and propositions for relief, although the disease itself has been so rare that it does not figure as a cause of death in the statistics of any great city of the world.

Possible Injuries to the Nervous System. There is,
however, a form of injury to the nervous system which may be occasioned by violent physical or nervous shock; and it is proper that we should look closely at football and determine whether the player is liable to such injury from the severe blow occasioned by the collision of two players, or the violent throwing of a player to the ground. This attitude of the question has been quite carefully examined by Dr. Morton Prince, of Boston, and the result of his investigations is here communicated, under date of May 8, 1896, as follows : -

I am very glad, in response to your request, to give you the results of my inquiries into possible injuries to the nervous system from football playing. My inquiries have been directed into a special class of injuries. You must know that persons who are subjected to violent concussions, physical and nervous shocks (whether the shock be slight or severe) are liable to suffer from certain nervous accidents which are technically known as trammatic neuroses; they used to be called spinal concussion and "railway spine," the latter term being derived from the fact that such injuries are very common after railroad accidents. They may follow almost any accident in which there has been a severe physical or psychical shock. For example, they frequently are caused by falling from a height, or tumbling down steps, or indeed simply slipping and tumbling backward on to the ground; they are not uncommon as a result of carriage accidents, collision, etc., etc.

So common are these accidents that the courts are full of cases which are the subject of litigation in the matter of damages.

The symptoms which are most commonly met with in such cases are: paralysis of the arms and legs, or both; loss of sensation in different parts of the body; impairment or loss of sight; severe pains, generally located in the region which was the seat of the blow ; general prostration; and various mental disturbances of different kinds, such as inability to apply the mind, irritability, loss of mental control and emotion. There are numerous other symptoms of this disease, but it is unnecessary to detail them further here.

These injuries to the nervous system may be very severe, completely disabling the injured person, and may last for many years. It occurred to me that if the generally accepted view regarding the exciting cause of these accidents be true, they should be common among football players. Any one who has watched a game must have been struck with the great momentum' with which players frequently strike the ground or come together, and the severe blows that, in consequence, are inflicted on all parts of the body. The physical blow resulting from a man weighing 160 pounds being thrown to the ground when running at full speed, or when two such players collide, must be tremendous. It must far exceed the shock inflicted in many railway accidents, where, for example, a passenger may be simply thrown out of his seat, without any external injury being inflicted upon him; and yet that passenger may afterwards suffer from extreme nervous injuries of the kind I have above described.

With a view to determining whether such injuries may result from football accidents, I wrote the attending surgeons, or those in charge of the principal football teams of the country, asking whether they had ever known a player to suffer from a traumatic neurosis as a result of a football accident.

All my correspondents stated that they had never seen any injury of the kind I have described result from football accidents. I may further state that, while I myself have seen a great many injuries of the kind resulting from all sorts of accidents, I have never seen a single case which was due to football playing. From this evidence I think there is little doubt that whatever may result from football playing, traumatic neuroses are not caused by the game.

> Yours truly, Morton Prince, M. D.

This would seem to dispose of the hypothesis that there might be injury to the nervous system from the violent exercises of the game.

Injuries from Imperfect Training. Added to accidents, there is injury done to the player through injudicious
methods of training, or the lack of all training. It is a deplorable fact that there is wide-spread ignorance on the general subject of training. Perhaps it seems singular to the casual observer that a young man with a fine natural physique should necessarily change the diet that has given him this exceptional vigor, now that he has most need for that vigor. In training for football, however, his diet, habits, hours, and method of life should be subjects of special care and oversight, to the end that his physical condition may successfully withstand the increased exercise which he is about to undertake. There is also need of care that, in the zeal for the game and the spirit of emulation, he should not overwork. Training is necessary, and it should be wisely directed. There is one training for speed, a different training for endurance or wind, and another training for strength. The intelligent trainer, knowing that all these are required in football, will study his players, treating them as individuals, rather than as a team, noting the effect of the game upon each man, and regulating individual exercise and diet in accordance with the clear indication of condition.

The Balance in the Argument. In considering the plysical disadvantages possible to the player by reason of injury or injudicious training, let it be remembered, in conclusion, that no permanent injury from football has resulted to any player in the last ten years at any of the five leading colleges of the country. The injuries have been mainly of a minor nature, confined to ankles, knees, and noses. On the other hand, who shall estimate the advantages of the physical upbuilding of the thousands of players who have gone out from these five colleges in the last decade? As one of the leading surgeons of Boston said upon this subject recently, "Football may twist a few joints, but it is building up a new race of men."

Moral Advantages. Intellectual Activity. Great as are the physical benefits to the football player, there are advantages of a mental or ethical nature which outweigh them.

For football is essentially a game of severe moral and mental standards. The superiority of the thoroughbred
over the ordinary "grade" animal is a mental rather than a physical superiority; and similarly the great lesson which the game of football teaches is that brains will triumph over mere strength always and everywhere in this world. It is the head that wins in football, and not the muscles. No dullard can play the game successfully, however great may be his physical development. Similarly, no inattentive player can ever succeed at football. To excel in the game demands of the player watchfulness and mental concentration.

The football player is taught, first of all, to think rapidly ; he must use his mind on the instant; he must carry three or four thoughts at the same time, - the signals, his part in the play, the individual work of the man opposite him, and the intention of the opponents. He must train himself to meet emergencies, where momentary hesitation will mean certain defeat, and he must decide the issues for himself. Early in his career there will be developed in him a degree of self-reliance which probably no other sport in the world would inculcate. Only in a general way is his work laid out for him. There is no one to help him, and he enters the game with an urgent and realizing sense of responsibility, which is of unquestionable value. He knows that larger interests than he can possibly realize now depend on his complete performance of his duty.

Self-Control. With this self-reliance he is unconsciously acquiring in the highest degree another and an even more valuable quality, - self-control. By severe training he is made to realize that there is no place for him in football until he has schooled himself in self-restraint. Whatever the provocation, whatever the disconcerting incident, he must never lose his temper, he must never let his attention be drawn from the play. And no game so tries the temper as football. No set of players in any American sport receives such severe drill in self-control as do football players, and the lessons learned on the football field can never be wholly forgotten. The single ability to take hard blows and not retaliate is a lesson not too dearly bought at the cost of a few incidental sprains and bruises.

Moral and Physical Courage. A third ethical advan-
tage follows closely upon the other two ; with promptness of decision, good judgment, and self-restraint, he must now add courage. The distinction between physical and moral courage is by no means clear. Our civil war taught the lesson that the two are, to some extent identical, for the men of best morals were the best fighters. Both physical and moral courage are certainly needed in football. The player must have courage to start with; but he will find that he has much more of both courage and spirit as the season advances. The necessity for courage in the football player is too patent to need argument, and the opportunity the game affords to develop this admirable quality will doulbtless be admitted by its severest critics.

Discipline. After courage comes the lesson of obedience. The world has never underestimated the value of a military or naval training in teaching implicit, unquestioned obedience and a fine sense of readiness to accept discipline. Football demands obedience. An army poorly officered becomes a mob; a football team would be even worse off without strict discipline. The biting sarcasm of the coaches must be borne without a thought of rebellion; the ummerited blame must be accepted without even an excuse; every order must be instantly and unquestioningly obeyed.

Negative Ethical Advantages. With these positive advantages to the player, there are other and almost equally great negative advantages. As the President of Lafayette College has stated, college athletics, and especially football, have done more to purify, dignify, and elevate college life than any other single influence in the last quarter of a century. No one will question this who is conversant with the inside history of the schools, academies, and colleges of this country and England. With this new systematic outlet for the animal spirits in young men, the old forms of disorder have almost disappeared. "Stacking rooms," "barring out," hazing, the stealing of signs and shutters, and all the old activities of the past, have been wholly laid aside. Vices of an even more vicious and dangerous nature, which exist wherever men are brought together in large numbers, have been greatly checked. Let
any man compare the college escapades of his own day with those of the present time, and he will confess that the cause of good morals has been vastly advanced by systematic athletics, and that clean living, regularity of life, and their resulting vigorous manhood, have been insisted upon by football and other college sports.

The disorders to which we have referred are not chargeable to college life. Group young men together, with human appetites, large vitality, and the love of freedom, and whether in the city or country, in college or out of it, neither parental nor collegiate restraint has ever prevented, or ever will prevent, either folly or vice. A stronger attraction must take the place of the attraction to evil, and it is this important argument which is so often wholly overlooked by those who decry intercollegiate sports.

Increased Power of the Will. Other minor advantages to the player must be passed over with a few words. The game requires and teaches coolness; it leads to a study of the dispositions of men, and just as it subjugates strength to thought, so does it also teach the subordination of strength to the will. There is an element in human nature which finds a powerful attraction in personal contest between man and man. We cannot suppress this element, but we may wisely direct it. It shows in all the competitions of life, and while in some sports it leads to envy or cheating, it has quite an opposite effect in football. The man who loses his temper will be outplayed; the man who plays an unfair game loses more for his side than he can possibly gain.

Moral Disadvantages. A careful consideration of the evil influences engendered by football will, we believe, reveal the fact that every one of the so-called evils of the game is not properly a part of the sport, but rather an association of it. The playing of important games in great cities has led to all forms of disorder; the high price asked and readily paid for tickets to such games has brought an income from a single game greater than the total annual expenditure for the support of twenty-five instructors. With this exaggerated income there has been an objectionable extravagance in expenses. These vices are not a part of the game,
but they are connected with it, and are often used as an argument against the sport by those who believe that not construction but destruction is the lesson of the hour, and that the manly features should be abandoned rather than that the vices should be reformed.

On the other hand, there is apparently no reason why our great games should not be converted into functions similar to the Eton-Harrow cricket match in England. As one writer says, it would be as reasonable to abandon our democratic form of government because it has produced a Tammany Hall, as to abandon football because its directors have not been wisely guided in their admittedly difficult task.

Attention Drawn from Study. One moral disadvantage which can properly be laid to the door of football is the fact that the excitement of the game draws the minds of the players from their studies. This is not a fault of the sport per se, but may, nevertheless, be so identified with it that it must be regarded as a drawback to the game. Let it be borne in mind, however, that this evil is not confined to football, but belongs equally to boat-racing and to baseball. It only becomes more obvious in football, in proportion as this sport is more popular than the others. The issue is really one which affects all competitive athletic exercises in colleges or academies.

The question is a deep one, for it involves a discussion of the objects for which a young man goes to college. He can never become a great scholar by four years of undergraduate life, but he may imbibe a spirit and learn methods which may fit him for the field he is to occupy. The college will have done its full duty to the young man if it puts him in a position from which he may become a learned man, a good business man, a sound scientist, an accomplished jurist, an able statesman, or an important factor in any walk of life. As one of the leading college presidents has pointed out: "The functions of the undergraduate college must not be confounded with the post-graduate and university training. The undergraduate is really a boy, - a large boy, to be sure, but still a boy, - and he needs physical as well as mental training. There is a danger in omitting from his curriculum
of study that most important item of open-air amusement. With this left out, there will come the inevitable dangers which rise from the repression of a natural physical excitement. When the growth of the body has come to a standstill, and not until that time, can the great need of outdoor exercise safely remain unsatisfied." (See Note B at end of clapter.)

The Evils of Notoriety. One other evil influence stands in much the same class as the one of which we have just spoken; for, while it is not inseparably associated with football, it is so much a part of it in all leading colleges, that it must be considered here as a distinct drawback to the moral benefits derived from the sport. We mean the notoriety which attaches to the player by reason of the extensive publicity given to college games in the daily newspapers.

We must admit that this is not only a disadvantage to the young man, but that it is one which has so far resisted all attempts at correction. Undoubtedly some method may be devised for reforming the evils of notoriety, which are capable of working so much harm to any one, be he young or old, unless he is endowed with a strong head and an abundance of practical common-sense. We will not enter upon the discussion of the injury which the newspapers are inflicting to-day by their gross exaggerations of the importance of individual and topical affairs ; it is enough to say that the cessation of newspaper notoriety, which the fickleness of journalism always renders inevitable, is a sore test to the unlucky beneficiary, who finds it difficult to preserve his balance in the midst of such bestowal and withdrawal of public attention.

But harmful notoriety is not confined to football ; it is assiduously cultivated by that unfortunately large class of persons who are never more pleased than when they are mentioned in the society columns of the daily papers. Let us candidly admit the evil; but, while admitting it, let us confess that it is in no way associated with the game: it is rather a penalty paid for success in any public walk in life.

The Charge of Brutality. Perhaps the most serious charge brought against the sport of football is that it is brutal, and engenders brutality in its participants.

There is but one way to put this charge to the test, and that is to examine the character of our football players as shown by their conduct in private life, when not on the football field. The difficulty of judging their character by their football play lies in the fact that roughness is not brutality, although many critics refuse to recognize a distinction between them. That football is a rough game no one will deny. That it is a brutal pastime, or that it creates or fosters brutality, no one will affirm who will take the trouble to test the question by such a personal analysis as we have suggested. As a class, football players are the most gentle and warm-hearted men in college. Individual exceptions may readily be noted, but the average can easily be found by diligent inquiry among the friends, teachers, and associates of any dozen players.

Surely this is the true way by which alone we can measure the effect of the game upon the player. The test of an institution is the men that it produces, and football will splendidly abide this test.

## NOTE A.

A great argument for football is the all-round physical effect on the player. It brings into active exercise not merely the muscles of the trunk, but of both extremities. Baseball and tennis are preëminently sports of agility, but football develops both agility and strength. As one well-known writer has pointed out, it is the old Greek Pentathlon revived and combined into one sport, - the running, the jumping, the wrestling, the boxing, and the throwing, all united in a single game. It is true that the tendency of the game is toward roughness, but this tendency may be quickly checked with competent officials.

NOTE B.
In regard to the time consumed by athletic exercises, it is a matter of record that this loss of time is in no way detrimental to the athlete's standing. On an earlier occasion, when the subject was under discussion, the faculties of Yale and Harvard consulted their books and found that, taken as a class, athletes stood a trifle higher in their studies than non-athletes. These results have since been substantiated by researches at other institutions.

It may be argued by those who favor the combination of dyspepsia with the midnight oil, that these men without their athletics would stand still higher. But let us not forget that the work of the modern university is not merely to make scholars of her young men, but to prepare them in all respects to combat the vice and ignorance and disease in this world. A few points more or less in scholarship-marks is not too great a sacrifice to make for self-restraint, presence of mind, courage, and obedience, taught on the football ficld.

## NOTE C.

The danger to life and limb is, fortunately, a matter of record. In a recent number of the "Century Magazine," Mr. W. C. Church, drawing his facts from "reports in my possession from sixty-seren institutions of learning, scattered over thirty-seven States," says that there are abundant reports of minor mishaps among the thousands of football players from whom he has lieard, but few permanent injuries are reported. He says that a California student had his neck broken, but he adds that he has heard of similar accidents in the families of his friends, which resulted from grmnastic practice. Mr. Church adds, "It is donbtful whether the percentage of accidents among undergraduates would lessen were football forbidden. Nature will exact her tribute in physical injuries for lier bestowal of surplus energy upon the young."

To Mr. Church's facts we may add one more: A member of the Harvard faculty recently compiled statistics showing that injuries from football are fewer proportionately than those from the seemingly innocent sport of tobogganing. He might have added, with equal truth, that they are fewer, proportionally, than the accidents to skaters, to mountain-climbers, or to horsebackriders. It is not far from the fact to say that as many and as serious accidents have occurred to students from slippers sidewalks between lecture-halls and dormitories as from football.

## NOTE D.

It is not necessary to claim for football that it is the best form of bodily exercise. It is certainly superior to the athletics of the gymnasium, but perhaps of less value in some respects than field-sports. Horsemanship, shooting, and fishing bring man into a closer relation to Nature than does football; in so far as they do this, they broaden and deepen his nature while developing his body and keeping him in the open air. But field-sports are largely out of the question with the young men in our schools and colleges, who hare neither the time, the money, nor the location in which to indulge them. Football belongs with baseball, lacrosse, cricket, and boating. The weak point in tennis and track athletics is the comparatively private character of the sport, which fails to draw out the esprit de corps which team sports derelop.

## CHAPTER VI

EXPLANATION OF TECHNICAL WORDS AND PHRASES, SLANG TERMS, AND COINED EXPRESSIONS OF COLLEGE FOOTBALL

Back. A term used for either full-back or half-back, usually the former.

Backs. All the men behind the rush-line. More generally applied to the two half-backs and the full-back; that is, the three men farthest back from the rush-line.

Blocking. Interposing the body in front of a man to prevent his getting through the line.

Blocking-Off. Interposing the body between the rumner and the would-be tacklers.

Block Hard, Block Long, Block Close, Block Low, Block High. Terms applied to the blocking: hard means with a forward push; long means to prevent the opponent for a considerable time from getting free; low means when the blocker crouches down; high means when he stands up; close means when the line blocks the inside men, that is, leaving any unblocked man or men at the ends of the line rather than at any other place.

Butting. Striking a man with the shoulder or head.
Canvas. A term applied to the jackets of the players.
Centre. A term applied to the snap-back, or the middle man of the rush-line, and also the middle spot of the field from whence a kick-off is made.

Centre Trio. Applied to the snap-back and his two guards.

Charging. Rushing forward to seize the ball or tackle a player.

Cleats. The small pieces of leather on the bottoms of the players' shoes.

Cocking the Ball up. Tilting it up, so that the point is higher from the ground.

Cork-Screw. A kick of a similar kind as a twister ; also applied to a revolving wedge.

Cross-Bar. A stick that goes across the two uprights in the goal.

Dash. A term used to indicate spirited play; also the sudden run of a player breaking away from the rest.

Dead. A term used to signify "out of play." The ball is dead whenever the umpire or referee blows his whistle; when a goal has been obtained ; when a touch-down, safety, or touch-back has been made; when a fair catch has been heeled, or the ball has been downed, having gone out of bounds.

Down. When the runner with the ball is tackled and held.

Drop-Kick. A kick made by letting the ball fall from the hands, and kicking it the very instant it rises from the ground.

Egg. A term applied to the leather ball.
End Rusher. The last man on either end of the forward line.

Fair. (Used as a noun.) Putting the ball in play when it has gone out of bounds.

Fair Catch. A catch made direct from a kick by an opponent, or from a punt-out by one of the same side, provided the man making the catch makes a mark with his heel, when the ball is caught, to signify instantly that he does not intend to run with it.

Fake. A pretense; a bluff; an endeavor to make the opponents believe that a different play is to be made than the one actually used. Thus, a fake kick is always a run.

Falling on the Ball. The action of dropping quickly to the ground, and covering the ball with the body, in order to secure it more certainly than by attempting to pick it up.

Field-Kick. Technically, a goal kicked either from a place-kick, a drop-kick, or from a bounding kick, - in fact from any kind of a kick except a punt.

Field Tactics. An expression intended to cover the general direction or management of the play.

First Down, Second Down, and Third Down. (See

Down.) These are terms used to indicate the number of attempts made to advance the ball. The first down is the one following an advance of the necessary distance, which must be a total of five yards in three consecutive downs. The second down is when one attempt has been made without succeeding in advancing it five yards. The third down is when two attempts have been made without securing a total gain of the necessary five yards. On the fourth down, which comes at the end of the third attempt, if the necessary five yards have not been gained, the ball goes to the other side. As soon as five yards have been gained, it is the first down again.

First Half. The first thirty-five minutes of the game.
Flying Wedge. A wedge that is in motion before the ball is put in play. (Now prohibited by the rules.)

Forwards. The seven men occupying the positions of end, tackle guard, and centre. (See Rushers.)

Foul. Any violation of a rule.
Free Kick. Any kick where the opponents are restrained by rule from advancing beyond a certain point.

Full-Back. The man nearest the goal, and the man who usually performs most of the kicking.

Fumble. To handle the ball with uncertainty; to drop it when it is in play.

Generalship. Used in contradistinction to field tactics, as meaning a broader consideration of the general methods to be adopted.

Getting Down, or Getting Down the Field. Going forward under a kick so as to be at the spot where the ball falls.

Getting Through. Breaking through the opponents' line on a scrimmage.

Ginger. Life and dash. A man las ginger when he plays very spiritedly.

Gridiron. A term applied to the football field on account of the white lines across it.

Ground-Gainer. $\Lambda$ term applied to a man who, when running with the ball, is usually successful at making his required distance.

Goal. The sticks which are set up in the middle of the goal line over which the ball must be kicked. Also the act of kicking a goal ; also, the territory behind the goal line.

Goal Line. The line running through the goal posts and at right angles to the side lines.

Goal Tend. Another term for full-back.
Guard. The player in the line next to the centre.
Hacking. Kicking a player in the shins.
Half-Backs. The two men standing next behind the quarter when the team is in possession of the ball and lines up to play. Half-backs are usually the men who do the greater part of the running. Designated also as right half and left half.

Held. Applied to a player when his progress is stopped, and the movement of the ball checked.

Heeling. The act of marking a fair catch by pointing the heel into the ground.

Heeling Out. A term applied in the Canadian game when the ball is put in play by being drawn back with the foot.

Holding. In general, unfair interference in the rush-line. Applied usually to detention of an opponent by use of the hands or arms.

In Goal. Over the goal line.
Interference. Interposing the person between any man and the object of his attack. It is usually applied to the assistance rendered a rumner by his allies. It is fair interference when they do not use their hands or arms ; it is unfair (or foul) when they do.

Intermission. An interval for rest ; a period of ten minutes between the first and second half of a match.

In Touch. Out of bounds.
Kick-Off. A place-kick from the centre of the field of play; it is used to open each half of the game, and also whenever a goal has been obtained.

Kick-Out. A drop-kick, place-kick, or punt made by the player of a side which has touched the ball down in its own goal.

Lacing. A term applied to the leather thong which
fastens up the ball; also, the string which fastens the canvas jacket.

Lacing Out and Lacing In. Terms used by the place kicker to indicate to the man holding the ball in what direction to turn the centre seam.

Leather. A slang term for the ball.
Line Breaking. Advancing into the line with the ball, and passing through an opening made usually by the assistance of the line men.

Line Bucking. Dashing straight into the line with the ball.

Line Men. Forwards or rushers.
Linesman. The man who marks the distance gained and lost.

Line-Up. The taking of positions by the team after each scrimmage.

Making the Play Safe. To closely follow the passing of the ball, so that if it be dropped the enemy may not secure it.

Muff. Missing a catch.
Nose Guard. A rubber protection for the nose.
Number Signals. Numbers used to indicate plays so that the opponents shall not recognize them.

Off-Side. In front of the ball; that is, between the ball and the opponents' goal. (The opposite of "on-side.")

On-Side. Generally speaking, behind the ball; that is, between the ball and one's own goal line.

Pacing the Distance. Pacing by the referee of the required number of yards when the ball is being brought in from touch.

Pass. Throwing or handing the ball from one player to another. More specifically, the movement of the ball from the quarter to the runner. The movement of the ball from the centre to the quarter is called the snap.

Penalty. Any forfeit inflicted by the umpire or referee.
Phase. (Slang.) Has a similar meaning to that of rattle, which see.

Piling Up. Falling upon the rumner in a heap after the referee's whistle has blown.

Place-Kick. A kick made by kicking the ball after it has been placed upon the ground.

Play. A call of the referee to continue the game; also any single operation for the advance of the ball; also the manner in which an individual performs his part.

Point Out, Point In. Terms used by the kicker to indicate whether the holder is to swing the point of the ball out from him or toward him.

Points. The value of certain acts as expressed in the score.
Punt. A kick made by letting the ball fall from the hands and kicking it before it touches the ground.

Punt-On. A punt made in a similar fashion to a puntout, only from within the field of play. (No longer used in the American game.)

Punt-Out. A kick made from behind the opponents' goal line to another player of the same side who stands out in the field to catch the ball.

Push Plays. Plays which depend for their success upon a body of men grouped behind the runner to force him through the line by sheer strength.

Quarter-Back or Quarter. The man behind the centre, who takes the ball when it is snapped back, and passes it to the runner.

Rattle. Slang expression, meaning to disconcert.
Referee. The judge of the position and progress of the ball.

Revolving Wedge. A form of attack in which the players group in the shape of a wedge, and after the first forward impact turn their course partially or wholly, so that the entire wedge rolls, as it were, around the obstacle.

Run. An advance made by the player carrying the ball.
Rushers or Forwards. The seven men who form the first or forward line when a team lines up. The rushers are two ends, two tackles, two guards, and the centre or snap-back. Their positions are not now so accurately defined as formerly.

Rush-Line Half. A back who, on the defense, plays up behind the line.

Safety. A point of scoring made against a team when one of its players, guarding his goal, receives the ball in some way from one of his own side, and touches it down behind his goal line; or when he himself takes the ball back and touches it down; or when the ball, kicked by one of his own side, bounds back across his own goal line and he then touches it down. The term" safety" is applied because this gives him the privilege of taking the ball out for a kick, and thus relieving the pressure against his goal. A safety scores two points for the other side.

Sailer. A kick where the ball takes advantage of the wind, and stays up a long time.

Score. Used either as a verb or a nom. To score is to make points against the opponent; the score is the number of points made.

Scrapping. Rough tussling in the line.
Scrimmage. A scrimmage takes place when the holder of the ball places it upon the ground and puts it in play by kicking it forward or snapping it back.

Second Half. The second thirty-five minutes of the game.

Series. Any number of different plays which are executed from the same formation or line-up. Also, any number of plays following one another in a predetermined order, without separate signals.

Shin Guard. A protection for the front of the leg.
Side Lines. The boundary lines rumning along the side of the field.

Signals. The method used by the quarter to indicate to the team what the play is to be.

Sign Signals. Those given by means of some motion of the hand, foot, head, or body.

Slugging. Striking with the closed fist.
Small Wedge. $\Lambda$ group of two or three men, usually hastily formed for an attack.

Snap-Back. The act of sending the ball back to the quarter-back, usually performed by the centre man in the rush-line. The term is also used to indicate the player who does the snapping back.

Soldier. To shirk or play listlessly.
Spiral. A kick similar to the twister, in which the ball maintains a true course, while revolving on its long axis.

Split Wedge. A wedge which, after being started, divides into parts.

Spread Out. To stretch out the rush-line, separating the men one from another.

Tackle. Used both as a verb and a noun. To tackle is to seize the runner. A tackle is the act of seizing the runner, and is also applied to the man who plays between the end rush and the guard in the forward line.

Tandem. A method of grouping the players whereby a runner is preceded or followed by an interferer in direct line of his body; also used to designate a play in which the attack is by a grouping of this sort.

Team Play. A systematic coöperation of effort by each man on a team towards a common end.

Ten-Yard Line. A line drawn ten yards from the centre of the field parallel to the goal lines, in front of which the opponents cannot advance until the ball is kicked off. (Also used to designate a ten-yard distance from either goal.)

Throttling. Tackling which prevents an opponent from breathing; sometimes wrongly applied to any tackle around the neck.

Time. A call of the referee that stops the game.
Time Out. Time taken out by the referee when play is not actually in progress.

Touch-Back. The act of touching the ball to the ground behind one's own goal line, the impetus which sent the ball across having been received from an opponent.

Touch-Down. Touching the ball to the ground behind the opponents' goal line. A touch-down scores four points.

Touch-in-Goal. Out of bounds and past the goal line.
Tossing. The chance turning of a coin, by which the captains determine the choice of goal.

Tripping. Tackling below the knees, or in any way holding or stopping the runner by the feet or lower part of the leg when he is running.

Try-at-Goal. An attempt to kick the ball over the cross-
bar of the opponents' goal. A toucli-down entitles a side to a try-at-goal.

Twenty-five-Yard Line. A line drawn twenty-five yards from each goal, and parallel to the goal line. It is the limit of kick-off.

Twister. A kick which either temporarily or permanently rocks or sways the ball rapidly on its short axis as it moves ahead:

Umpire. The official who judges the conduct of the players.

Using the Arm. Similar to the use of the hands, only that the arm is used instead.

Using the Hands. Applied to both a fair use of the hands and an unfair use. A fair use is where the runner, having the ball, pushes out with his hand and thus wards off the men attempting to tackle him. Another fair use of the hands is in the case of the would-be tacklers pushing the interference aside in order to reach the runner.

Walking In. Bringing the ball in from the side line when it has gone out of bounds.

Warding Off. The same as using the hands or arm by the rumer.

Wedge. A group of men formed about the runner to assist him in his advance.

Wedge on a Down. A wedge that is formed when the ball is in a scrimmage.

Word Signals. Various forms of expression (either sentences or single words), used by any player to convey iuformation to his allies without its being intelligible to the opponents.

## CHAPTER VII

## TWENTY YEARS OF FOOTBALL

Difficulty of Assimilating English Rugby in America. When the game of football was taken up by the College Associations, and an attempt was made, by the aid of rules, to develop the former "rush" into a rational and well-regulated game, recourse was had to the English Rugby Rules. The American players found in this code many uncertain and knotty points which caused much trouble in their game, especially as they had no traditions, or older and more experienced players, to whom they could turn for the necessary explanations. The Harvard men, who had learned the game chiefly from the Canadians, were able to obtain information to some extent from this source, but even then satisfactory explanations were not always forthcoming. After struggling a year or two with these difficulties, the college players naturally began to think for themselves, and to plan how suitable rules could be made for their own game. In this way was brought about the commencement of a series of changes in the rules which has lasted to the present day, and even now for some time in the future bids fair to be a matter of discussion involving long sessions of committees, before all points can be satisfactorily settled.

Special Instances. The first rules to be changed in the Rugby Union Code were numbers 8 and 9 , which were so ambiguous as to cause endless trouble in their correct interpretation. Rule 9 was as follows : -

[^1]Rule 8 defined the ball as being dead " when it rests absolutely motionless upon the ground." The idea of awarding a touch-down when the ball is "dead or fairly so " carried
too great uncertainty for American minds. Every one who has played the game at all knows how easy and endless a proceeding it is for half a dozen men to follow a bounding ball across the goal line, and there tumble about and wrestle with each other in the endeavor to make it "dead or fairly so." When was the referee to discriminate and say that the touch-down had been made? The result was that the clause "or fairly so" was stricken out of the rules at the close of the first season.

The Scrimmage and its Development. The next change was in regard to the scrummage, or scrimmage, as American phraseology has it. This feature of the English game has already been described at considerable length in a preceding chapter. The Americans at first adopted this same method of putting the ball in play, but in a very short time the advantages of heeling out the ball from the scrummage, a custom not then tolerated in England or Canada, were keenly appreciated, and no prejudice was felt against the practice. The clever scrummagers, therefore, taught themselves to perform this feat quickly and accurately, with the result that the half-backs knew where and when to expect the ball, and so could be more efficient in passing it to the runner.

Heeling Out. From this point it was but a short step to assign a particular player to this duty of heeling out or snapping back the ball from the scrimmage to one of the halves. It was then no longer necessary for the other forwards to bunch close together about the ball and try to advance it along the ground, but it was found much more advantageous for them to line up across the field, taking care to be on-side when the ball was snapped, and each one on the lookout for a chance to break through at the proper moment and down the runner with as slight a gain as possible.

The Quarter-Back. The next point was the development of the quarter-back, who replaced the half-backs and held a position directly behind the snap-back or centrerush, and received the ball directly from the latter's foot. This second man was at first allowed to run forward with
the ball, but later this was forbidden, the quarter-back always passing the ball to some one else for a run or kick. This development of the scrummage into a more open style of play is the chief point of difference between the English and American games. The two divergent methods of putting the ball in play produce sports of an entirely distinct character, and it is at this point that the Americans broke entirely away from their predecessors and formed a new game of their own.

Solution of Further Difficulties. Attendant upon this very important change in the form of the game came the necessity of altering regulations which bore directly upon the scrummage in the English code of rules. This was especially the case in Rule 14, which forbade any player touching the ball with the hands when it was in a scrummage. It was impossible to determine when the scrummage began and when it ended, or how many men were engaged in it. The solution of this difficulty was reached by enacting that only the snap-back and the opponent directly opposite to him were participants in the scrummage, and that these two could not take up the ball from the ground until it had touched a third man.

Rules 12 and 13 in the Rugby code provided that no player should take up the ball when it was dead, but only when rolling or bounding. Players tried to dodge this rule by kicking the ball slightly as it lay motionless upon the ground, and then picking it up in the hands. In actual practice this was found to be of no great value, because of the small variety of cases when it would be applicable. The players were too quick in seizing the ball when free and rolling about, and would be upon it before it had time to come to a standstill. It thus never became dead except in the hands of a player or in touch. These regulations, therefore, were soon discarded.

Maul in Goal. The "maul in goal" was a feature in the original Rugby game which was a source of unending trouble to the Americans. Rules 19 and 20 provided that when a runner was tackled behind the goal line the ball should remain in possession of the side having it when it
crossed the line, unless the players of the other side gained entire possession of it by force. In this way every one was instigated to join in the "maul" and form a lawless, struggling mass, which might grow rough at times, and in any case had no limit either in time or character. The referee could with difficulty tell where the ball was or when a touch-down was made, so that, after combating this feature for several seasons, and trying vainly to obtain a correct and satisfactory interpretation of the rules, all football players alike agreed that every rule containing the words " maul in goal" should be dropped. It was enacted instead that as soon as the rumner was held after crossing the goal line, the ball should be put upon the ground and a touch-down counted at that point.

Block Games. Rules regarding "touch-in-goal" and scoring of "safety touch-downs" became necessary at the time of the " block game," which for a time threatened to actually kill American football. This style of game was adopted by a losing team, or by one which had made a few points and then desired only to prevent the opponents from scoring, not being desirous of adding to its own score. The idea was to keep possession of the ball, and by a number of short rushes backwards or forwards to use up the time till the half was over. Thus nothing was gained for either side and the game proved uninteresting and aimless to an extreme degree. If a team, using these tactics, should be forced behind its own goal line, the ball was taken out to the twenty-five-yard line and the same style of play resumed. This game could thus be prolonged indefinitely, and was used quite extensively during two or three seasons, after which two steps were taken to check it.

The Five-Yard Rule. The first of these was to make a safety count two points against the side making it, and the second was to adopt the so-called "five-yard rule." The latter provided that a team holding the ball must, in three successive fairs or downs, advance it five yards or retreat with it twenty, and, failing to do this, must deliver it over to the other side. By this rule was remedied the greatest fault that has ever been found in the American game, and its safety for the immediate future was assured.

English Off and On Side. The English rules regarding "off-side" and "on-side" seemed rather obscure to the Americans, and also appeared to contain a discrepancy. According to Rule 24 (as has been explained in the first chapter), a man off-side was put on-side as soon as the ball touched the dress or person of an opponent, while Rule 25 stated that the opponent may run five yards before those off-side are free to commence or attempt to run or tackle. The one restriction seemed to make the other unnecessary. Ultimately the latter was cut out of the American rules, and a man off-side was declared on-side again as soon as an opponent had touched the ball.

Punting Out and Punting On. The English method of punting the ball "out" or "on," in order that a team scoring a try in the corner of the field might have a better opportunity for kicking a goal, was used to advantage for several years. When touch-downs were made to count in the score, however, a serious trouble arose. After some practice it was possible for a player on the team so scoring a try to punt the ball with his shin, or even his knee, into the arms of another man on his own side, who stood only a yard or two from the goal line, and immediately after making his catch rushed across the goal line, thus scoring another touch-down. This proceeding was made easier by placing two of the heaviest men on a team in front of the catcher, so as to aid him in advancing the necessary short distance against the opponents' opposition. Upon one occasion a team at St. George's Ground, Hoboken, made in this way eleven successive touch-downs from an original one at the corner of the field, gradually working the ball nearer to the goal posts with every effort. Finally they grew tired of this method of play, and took the ball out in front of the posts, whence they kicked an easy goal. Legislation against such tactics has been adopted, and an effectual stop put to their use. As a matter of fact the practice of "punting on" is no longer of any value at the present day.

In Touch. The rules regarding playing the ball in from touch have been slightly altered in the American rules
from those in the original Rugby code, and the style of making the play has undergone a marked change. The most common method in the old days of the game was to throw the ball in at right angles to the touch line, but now teams usually let the centre-rush walk in with it and put it down for a scrimmage, the distance varying between five and fifteen yards.

Tie Games and Time of Game. $\Lambda$ long struggle has been carried on all through the history of American football in regard to provisions against tie games. For a time the several captains tried to make a satisfactory agreement before each match, the one of the stronger team being naturally the most urgent. The legislation on this point has been in two principal directions: (1) the time of game, and (2) the methods of scoring.

At the outset, matches lasted generally an hour and a half, this time being divided into three intervals. This arrangement gave one team the advantage of the wind or any peculiarity of the field during two thirds of the whole game, and hence was declared unfair. Next, the time was divided into two halves of forty-five minutes each, and two halves of fifteen minutes each were added in case of a tie. These extra halves were finally found unnecessary, as the very exact method of scoring in vogue during the last few years has greatly lessened the probability of tie games. At a much more recent period the time of game was still further reduced to two thirty-five minute halves, which regulation remains to the present day.

Scoring. The mode of scoring has been even more perplexing, and has undergone severe changes. Primarily, as in England, only goals were scored, but later, in case of a tie by goals, "tries" or touch-downs were made to count. Next, the wording of the rule was changed to read: "A match shall be decided by a majority of goals only," and only a year later the decision was made by touch-downs, a goal counting as four touch-downs. Furthermore, in case of a tie, a goal kicked from a touch-down was given precedence over a field-kick goal. The scoring of safeties became necessary in order to partially check the block game, and caused a
struggle in which the weaker teams strongly opposed the idea of attaching any importance to the scoring of safeties. It was finally agreed that in games where no other score was made, - neither by touch-downs or goals, - a team making four or more safeties less than the opponents should win the game. At the same time the safety was defined as being made only when the ball was actually carried or passed by a team across its own goal line, and not kicked over by opponents. Later on, exact values were given to the various forms of score, and the matches came to be decided by points. Slightly more value was given to touch-downs than previously. The count for such scores was then arranged, and is now as follows : touch-down from which no goal is kicked, 4 points ; touch-down and goal, 6 points; goal by proper kick from field of play without a touch-down, 5 points; safety scored by opponents, 2 points.

Other Discarded and Altered Rules. Various other rules of the Rugby Union Code have been found superfluous, the necessary points being otherwise covered, or considered unnecessary for the better development of the game. Rule 35 , saying that a catch made when the ball is thrown out from touch is not a fair catch; and Rule 45, allowing a player to touch the ball down in his own goal, shared this fate; and Rule 48, forbidding the bringing out of the ball between the posts after a touch-down, was also discarded, as it really was of no particular significance. Rule 51 debarred players from making a fair catch in touch; and Rule 52 prevented opponents from interfering with the ball after a touch-down. These were both found unnecessary, and dropped.

Rule 54, relating to "charging," was somewhat complicated, but worked well enough, except that the question often arose whether the ball was put in play after a fair catch by the charging of opponents or not. The kicker could step forward, thus provoking the charge, but if he then drew back, were the opponents obliged to retire behind their line? If this were not so, and the ball was put in play by the charge, then the kicker was free to run forward or to pass the ball to another man of his own side for a run, and thus
gain quite an advantage. It was finally decided that the charge did not put the ball in play.

Regarding rough play, Rule 57 in the original Rugby code read, "No hacking, or hacking over, or tripping up shall be allowed under any circumstances." This rule has been changed slightly and made more explicit. "Tripping up" was made to include tackling below the knees as well as throwing a runner by the foot, and is forbidden by a rule against foul tackling. "Butting" was also thought to be productive of injuries, and hence has been prohibited. The present reading of the rule forbids "all unnecessary roughness and striking," and seems to cover the ground very satisfactorily.

Uniforms. Rule 58 of the Rugby code forbids the wearing of projecting nails, iron plates, or gutta-percha on any part of the boots or shoes. These restrictions still exist in the American rules, with the additional provision that "no sticky or greasy substance shall be used on the person of players." This last clause was rendered necessary by a peculiar episode which took place in New Haven immediately after the canvas jacket had first made its appearance. A team, dressed in this new garb, came to play against the Yale men. In addition, its players had smeared lard all over their clothes, and in the game they greatly astonished the conservative New Haven men by the way in which their runners slipped through the latter's fingers. It was only by filling their hands with sand that the Yale men were able to retard their opponents' rushes. The players during these years also became accustomed to apply turpentine to their hands in order to counteract the effect of the lard on the dress of their opponents. As a result the ball soon became very sticky and difficult to pass accurately, and the best interests of the game demanded that the present rule be adopted, although this use of lard would never be so effective at the present time, since the science of low, hard tackling has been reduced to such a fine point. Tackling, which was in the early days not allowed below the hips, is now permitted down to the knees.

Officials. The question of referees or judges has given
rise to considerable discussion, and alterations from the English rules have been many. The Rugby rule said that unless officials were appointed by the two captains, these two men should decide all disputes, and that questions regarding the correct interpretation of rules could be appealed to the Rugby Union Committee. The evidence of judges was found to be necessary, and for a time two men were employed in this capacity. Then a referee was added to decide in case the judges disagreed on any point. Three men made too large a number, and the two judges were all the time tempted to badger the referee, each one arguing his own case. The judges were therefore abolished, and all games were for a time regulated by one referee. This arrangement gave place only a few years ago to the adoption of two officials, a referee and an umpire, the former to pass judgment concerning the ball, the latter concerning the men. It was at first feared that it would be clifficult to make a satisfactory distinction between the two fields of their respective jurisdiction, but in practice this arrangement has been found to work very well indeed. In recent years two more officials have been added. They are called linesmen, and have the duty of watching the downs. They stand on the side of the field holding canes fastened by a cord at a distance of five yards apart, and at each "first down" they mark in this way both the spot of this down and the point to be gained in three rushes. These men have proved of invaluable service to the referee in determining " first downs."

American Rule-making. It can easily be seen from the foregoing review of the most important changes made in the football rules since the introduction of the game into America, that much time and thought has been spent by all those interested in the sport in an endeavor to further its interests as much as possible. These energies have beeu directed chiefly towards perfecting the rules of the game, in order to prevent brutality and slugging, to make science and skill count for more in winning a match than brute force and weight, and to make the game fast and interesting to both player and spectator.

Rule-making in the early days of the sport lay chiefly in
the hands of the various captains, who met together before a match, and decided in what manner certain points of discussion should be settled. Later on it was deemed wise to call a meeting of delegates from the various institutions which were supporting teams in the field, and allow them to draw up a code of rules for the ensuing season. The result of this plan was that each university was tempted to send a man to the convention with instructions to put through certain rules, which would be most beneficial for their own team in that particular season. Thus temporary circumstances were at times given more consideration than the best interests of the sport, and the tendency in this direction was very strong, however earnest and well-intentioned the individual delegates might be. It was not long before this danger was appreciated, and fear began to be felt that the rules were becoming worse rather than better. The matter was a subject of serious discussion for some time among graduates, captains, and certain members of the college faculties.

Advisory Committee. At last definite action was taken by these persons, and through the adoption of a new constitution by the football association it was provided that all changes in the rules should be made by a permanent Advisory Committee of graduates. This committee held meetings, adopted each year whatever changes seemed expedient, and submitted them for ratification to the Intercollegiate Association, which has in every case accepted the proposals thus made. In case the Association should not ratify, then the proposed rules could still be carried by a majority vote of the Advisory Committee. This plan of rule-making worked perfectly, no cause arising for any friction between the different parties as long as the Intercollegiate Association existed as a strong body.

University Athletic Club. In the fall of 1894 the Intercollegiate Association, after the withdrawal of Wesleyan and the University of Pennsylvania, consisted of only two universities, Princeton and Yale. The two representatives of these institutions felt that the year was a critical one for the success of football, and that rules formed by only two universities would not carry sufficient weight. Their
gravest fears were caused by the greatly exaggerated development of mass plays, which had come into use during the last two or three years, and were regarded as an increasing evil. The University Athletic Club, of New York, was appealed to and was requested to invite a number of representative football men to a convention for the discussion of rule-making. Such a meeting was held, and the suggestions thus made were later accepted unconditionally, both by the University Athletic Club, the Advisory Committee, and the Intercollegiate Association.

The situation at the end of another year was still more complex. Two of the larger universities had a quarrel, resulting in a complete rupture of athletic relations between them, and a formation of two distinct sets of rules. The other college teams adopted one code or the other with slight variations, and before almost every match it was necessary for the two elevens to come to an understanding over all points of disagreement. The University Athletic Club was again requested to call together a convention of experts, but declined because one of the two universities mentioned above did not join in this appeal. The better sense of all football enthusiasts showed itself in the end, and a universal appeal was made before another year. The committee consisted of six men, each, with one exception, being empowered by his university to act as its representative. The sixth gentleman was invited as and considered a delegate at large. It was voted by this convention that no rule should be adopted without the unanimous consent of the members, and a thorough revision of the code was undertaken.

Rules - Committee's Work. The results of the work of this convention were published in June, 1896, and contain some few changes. The deliberations of the greatest importance bore on momentum and mass plays, while slight alterations were made regarding "fair catch," the duties of the umpire and referee, the more effective elimination of brutality and unnecessary roughness, "charging" and putting the ball in play.

Regarding the first of these points, it was enacted that before the ball is put in play in a scrimmage, no player of
the side having the ball shall take more than one step in the direction of the opponents' goal, and that, when the ball is put in play, at least five players must be on the line of scrimmage. Also if more than five players, not including the quarter-back, be behind the line of scrimmage, two of them must stand more than five yards behind said line, or must stand outside of the end men on said line. These regulations prevent the players from massing together behind the line, or from gaining any momentum by moving forward before the ball is snapped.

The player making a "fair catch" is protected by a rule stating that unless the catcher advances beyond his mark no off-side man shall interfere with him under penalty of fifteen yards loss.

The referee has the final decision on all points not covered by the umpire, and he may appeal to the umpire and linesmen for testimony upon all points within his jurisdiction. The referee shall also determine the time for a down by blowing his whistle, and he can give fifteen yards to the opponents of any player who then "piles upon" the runner.

The snapper-back is given entire possession of the ball. If opponents interfere with his putting the ball in play, his side gains five yards for every such offense. The old rules used to allow the opposing centre partial possession of the ball, so that he could delay the game unnecessarily by preventing the ball from being snapped.
"Charging" by opponents is lawful if the punter advances beyond his line, or as soon as the ball touches the ground. If the opponents charge before the ball is thus put in play, they shall be put back five yards for every such offense.

Division of Labor in the American Game. As the American game has been developed by this series of changes in the rules, the idea of a division of labor by the assignment of particular duties to each individual player has been greatly emphasized. In a general way the eleven men of a team may be divided into two groups, the seven forwards and the four backs. In the early days the work of the former was best described as a steady, hard rush from the beginning to the end of the game, each one of the seven having the same
duties. As the scrimmage developed into the more open rush-line, it was found that the men could be advantageously assigned to positions according to their weight, quickness, cleverness, etc. For instance, three heavy men, the snap-per-back, with a "guard" on either side, would be placed in the centre, so as to protect the quarter-back till he should make his pass, and the play was thus under way. The men of moderate weight, quick in their movements and hard tacklers, were stationed next in the line, and acquired the name of "tackles." The two end rushers completed the line. These must be sure tacklers, fast runners, and clever players, for it is their duty to bring down a runner coming around their end, and to get down the field under a kick soon enough to stop their opponent the very moment he has the ball, or to take advantage of a muff or fumble. These line men have innumerable other duties, which gradually devolve upon them, and which vary in different teams, as every captain is very likely to have his own idea as to how his men should play together.

The four backs are the quarter-back, whose duties have already been somewhat explained, two half-backs, and the full-back. These positions result from those of the old Rugby backs, the number of men in each capacity being changed to suit the general development of the game. The half-back must be a player of considerable versatility. His chief function is to run and kick when on the offensive, and to tackle with judgment and certainty when on the defensive. These have always been the fundamental requirements of the English three-quarter-back, but the manner in which they are put into practice has undergone considerable change in America. The kicking is now left more to the full-back, though it is considered an advantage to have three good kicking backs. The running of the half is not as much dependent upon the player's individual merits, since now he has two or three other men to go before him, and block off the opposing tacklers, and the clever half is the man who knows how to follow his interference well, to make use of it as long as it is advantageous, and then to know when to break away from it, and make his own way. The duties of the full-back
have developed into much the same as those of the half-back. He is chosen perhaps more as a good kicker and sure tackler, but is still expected to do a good share of the running and blocking. He corresponds to the English back, but is brought much more actively into the game. The duties of the backs vary considerably with the ideas of the various captains. Very often, when a team is playing on the defensive, it is thought advisable to bring one or both of the halves up into the rush-line, so as to overpower the opponents more easily, and at other times they play back a few yards to catch the runner immediately upon his passing the forwards.

The vital element in coaching a team lies nowadays in this problem of the division of labor. The greater part of the practice, during the latter part of the season especially, consists of constant drilling in the different plays, and of inventing means to stop the opponents' rushes. The captain and coaches of each team attend the games played by their opponents, and study their plays, in order to discern their weakest points, and plan how their own team can best meet them. It is so arranged that each man in the line knows what his play is, whatever may be the tactics adopted by the opponents. In offensive work each team has various plays, chosen as those best suited to advance the ball, taking advantage of any weakness of their opponents. In each of these plays every man in the eleven has a special duty assigned to him, and every one is informed beforehand what the play is going to be by means of a code of signals, sometimes very complex, which are usually given by the quarterback.

## CHAPTER VIII

## TWENTY-FOUR HOURS WITH A 'VARSITY PLAYER

A Popular Error. There are many mistaken ideas in regard to the daily routine of a 'Varsity football player who is in training. Even persons ordinarily well informed about college sports go far astray upon this subject.

The popular impression seems to be that the football player rises at five in the morning, runs from four to ten miles across country, just to stretch his muscles, before breakfast; eats at all three meals a prodigious amount of nearly raw beef, washed down with a plentiful supply of ale; does little or no studying; plays football morning and afternoon ; and finally presents to the coaches in the evening the serious problem of how to give him exercise enough to keep him in decent condition.

With this general conception are united visions of a still more lurid nature. Stories are told of players who, after eating several huge chunks of raw beef, forget that they have taken their meat course, and, under the impression that they have not dined, tackle the entire menu, and eat a second dinner. Other visions rise of the football player injured on the field during the afternoon play, and resting while a broken arm or a fractured rib is temporarily bandaged, in order that nothing need interfere with the practice.

Unfortunately, perhaps, for the football player, many of these visions are far from the truth. Too often, instead of having a voracious appetite, he has what is popularly known as a "skittish" one ; and, so far from furnishing a problem to the coaches of how to give him work enough to keep him in condition, he is a source of no little anxiety by reason of his steady decline in weight.

What this Chapter will Offer. It is certainly due to
the player that these exaggerated ideas should be corrected and the true condition of affairs stated. Perhaps there is no better way of cloing this than to give, briefly, the routine of a 'Varsity player in a single day of the season. By reason of the varying arrangements at the different universities, a universal routine does not exist. A certain general outline, however, can be given, which at least shall not be exaggerated or fanciful. In its minor details, and in the relative order of the events of the day, the picture may need to be changed to fit the player at one or another of the leading colleges, but, generally speaking, it will be found to be a fair description of a single day as it is passed in the height of the season by a player on any one of our 'Varsity teams. We shall begin at the beginning of the day.

Rising and Breakfasting. From a sleep which, however disturbed it may have been by excitement or anxiety, in the earlier hours of the night, is abnormally sound in the early hours of the morning, the player is aroused by a sharp knock upon his door at seven o'clock. He is given three quarters of an hour in which to dress and report himself at the training quarters. These quarters are usually centrally located, and there the members of the team eat their meals together. The ideal training quarters are those at Princeton, where a perfectly arranged clubhouse is maintained, with reading-room, assembly-room, a large dining-room, and every comfort. At few of the other universities, however, are such arrangements as yet possible; and all that the "training-table" usually means to the player is a large dining-room in some boarding-house, where one or two tables run diagonally across the room, and twenty-five or thirty players crowd and jostle against each other in the endeavor to provide seats for all their number at one time. Sometimes there is a small assembly-room, in which the men gather before going in to the table, and here, if there is a piano, there is sure to be music and singing.

Into this room we go with the player. - One by one the men straggle in; that they have dressed in a hurry is amusingly apparent; but they are not troubled with selfconsciousness, and are quite indifferent to their looks. Far
from being the ferocious beings of popular conception, which believes that roughness on the field implies roughness off of it, they are, ordinarily, a very good-natured, decent set of fellows. As they enter they follow, with singular unanimity, a long established custom, and shy their caps into some faraway corner, or at some imaginary hat-peg on the wall. It is seldom that the cap of a football player is found in the position where it might naturally be expected to be.

When the men have nearly all reported for breakfast, the captain enters, with the air of having a vigorous sense of responsibility. There are half a dozen sharp interrogatories to different men on different subjects. This man is asked if he slept better than the night before ; another is questioned as to the condition of his ankle or knee, and he is made to show his paces, with a view to determining how soon he can be counted upon for the work of the game. Another is told that he must secure the services of a masseuse, and be well rubbed during the morning. Thus the condition of the cripples is hurriedly noted, and dismissed. with a word of direction. The men then either go into the breakfast-room, or, if it is late in the season, they are apt to be put through some signal practice on the lawn behind the house. By eight o'clock they are all at table. The menu is much the same as it would be at the ordinary American breakfast table: there is oatmeal, or some other cereal, followed by chops or steak in liberal quantities, with potatoes, and perhaps a bit of bacon. Eggs cooked in any style are always on call; there is no tea or coffee, but generally milk, with plenty of pure drinking-water or oat-meal water, served always without ice.

The Morning's Work. Breakfast over, the men separate for classes and lecture-rooms, not to meet again as a team until the hour of lunch, which is at one o'clock. During the morning there is but little football work prescribed or undertaken, unless it is within ten days of the close of the season, and the important match of the year is close at hand. But some of the backs will be out for an hour of kicking practice. This morning squad may include the centre and quarter back, with the other backs. The
work will be almost exclusively devoted to passing, kicking, and catching. It will be supervised by the coach who has this department of the work in charge, and the captain will rarely be present, the only spectators being a few specimens of the genus "small boy," who will freely criticise and encourage the players. Sometimes the morning practice may be extended, for the development of some new form of interference, or for the correction of some fault which has shown itself in the team, and which needs to be remedied without delay. But morning practice very rarely amounts to anything more than an hour's work for a few individuals.

Lunch. At one o'clock the men assemble again at the training-table, where lunch is served. The meal is not a very popular one; it lacks the enthusiasm of breakfast. Taking place, as it does, before the hard work of the day, there is more or less earnestness, and even anxiety, among the men, and there is little jollity at the table. They seat themselves as they arrive, with no courtesy in waiting for late comers, the meal being eaten on the go-as-you-please order, with a not too attractive and elaborate menu. Soup, possibly; sometimes fish; but always a liberal supply of meat, with three or four vegetables, and vast quantities of dry toast. Tea and coffee are strictly barred, but a substitute in the shape of claret is allowed to some of the men in small quantities.

The Afternoon Practice. After lunch, at some hour between three and half past three, the men must betake themselves to the field, and be ready to report to the captain, dressed for the practice, at four o'clock sharp. At Yale the hours are somewhat different, the afternoon practice taking place at an early hour, leaving the balance of the afternoon for study; but in the majority of colleges the practice comes after the other work of the day, and begins about four o'clock.

The operation of dressing is pursued in a manner peculiar to the football player. It seems to be a part of his nature to scatter his limited clothing about in every direction, so that the work of dressing is undertaken in the most disjointed and generally irresponsible manner. Part of his clothing
has been left in the drying-room; a stocking is found at a remote distance from its mate ; his belt has strayed no one knows where ; there is a broken lacing on his canvas, which he neglects to replace, preferring to fasten it in a few clumsy knots. He does not dress ; he throws his clothes on, and loosely fastens them wherever they happen to hang. It takes the constant vigilance of manager, captain, and coach to see that he does not neglect the precaution of suitable padding, and that his shoes are properly cleated, and his clothes decently tacked together.

Promptly at four o'clock comes the call of the captain, and the men trot out upon the field. The description of the practice belongs to another chapter, and we need not refer to it here. Briefly, it consists of individual practice, followed by team practice without an opponent, followed in its turn by what is technically known as "stiff" practice, or hard practice, against a college eleven, and finally ending with the correction of personal faults in a short aftermath of individual practice.

Weighing and Rubbing Down. When it is over, back to the quarters, just at dusk, goes the tired player ; tired in body, but refreshed in spirit; the work of the day is done, and he has a right to the rest he has earned; it would be idle to deny that a part of the work has been severe, and some of it drudgery. The dirty clothing is stripped off, and the delight of a shower bath is followed by a brisk rubbing down by the trainer or attendant, one of whom is regularly employed for this work by every college team.

After the bath, and before the rubbing down, comes the important operation of weighing-in. The player steps upon the scales, not apparently interested in his weight, but rather giving it up in a perfunctory and half satisfied manner to the manager, who stands on guard at the exit of the bath-room to prevent the escape of any player without having his weight duly recorded. Later in the season the weights of the players will often not be given to them to know, but they are carefully reported to the trainer, and the captain will himself give not a few anxious moments to the variations of this or that player upon the scales from day to day.

After rubbing down comes the leisurely dressing. The men talk about the incidents of the day's practice, and give a running comment on the work of the afternoon. The coaches are moving about among the players with words of criticism or approval, which the players take in equally good part, showing a marked willingness to learn their faults and profit by instruction.

The Evening Dinner. Dinner is served at the football training-table at 6.30 o'clock. It is the most enjoyable meal of the day, and altogether the most delightful period of the twenty-four hours. At the head of the table sits the captain, with the doctor or trainer at the foot. Most of the coaches are present at the festive board, and often there is, besides, some old graduate whose interest in the team has been great enough to induce him to pay a visit to the quarters, that he might meet the men personally and hear the latest news of their progress.

Bread Fights and Practical Joking. Spirits usually run high at the evening meal. There is a good deal of practical joking and story-telling. If the team is not depressed by some very recent defeat, the chances are strongly in favor of a bread fight. It always begins about the same way. Some unlucky fellow is pitched upon, and every effort is put forth to guy him. He is made the victim of innumerable jokes ; his playing, or some incident in his behavior, or, perhaps, some trifling peculiarity in his dress or speech, is seized upon as the pretext for a general discussion of his qualities by the entire table. One word of remonstrance, or one attempt to answer back, is the signal for bread throwing.

In a moment the air is full of flying missiles, toast, crackers, potatoes, oranges, - anything, - go flying through the air in every direction! There is only one door of escape, and that is to drop under the table. One by one the quieter members disappear in this direction, and the final issues of the fight, which has now broadened and developed into half a dozen side quarrels, are concluded by the few remaining participants. It may be that an unlucky dodge upsets a pitcher of milk, or a good-natured struggle ends in an up-
heaval of one end of the table, while three or four dishes go clattering to the floor, and this unexpected denouément is apt to conclude the fight.

Spirits are never depressed, nor tempers ruffled in these combats. The only long faces are worn by the waiters, or possibly by the proprietor, as the former gaze upon the dirty floor, and the latter surveys the ruined wall-paper. When comparative order is restored, the players slip back into their seats, although the combat is apt to be renewed along side lines during all the rest of the meal, and half a dozen fends are settled before the dinner is ended.

The menu for this meal is of most generous proportions; soup, a choice between two kinds of meat, four or five dishes of vegetables, cranberry or apple sauce, dry toast, and a light pudding or ice cream, make up a good list of eatables; while ale, claret, milk, and water furnish a fair choice of liquid refreshments.

Evening Work. With dinner the work of the day is not always complete. Very often there is signal practice, or the members of the first eleven are summoned to meet to learn a new play, or perfect the development of some new form of interference. Perhaps, in place of either of these, there is a brief blackboard talk by one of the coaches, or some graduate official talks to the men on the interpretation of certain rules and penalties.

In no case, however, are these meetings protracted beyond the hour of 9.30 , for at ten o'clock the player must pack himself off to bed. The consoling evening pipe, or longedfor cigarette, is of course denied him, but walking along in the darkness to his room, he is hailed by half a dozen of his college mates, and as he listens to their exultant tone of approval of the team, or their congratulations upon his splendid personal work in the last game, he tastes the intoxcating cup of popular favor, and is repaid liberally for all the trouble and exactions of the day.

## PART II

FOR THE PLAYER

## CHAPTER I

## ORGANIZING A TEAM

Three Cardinal Points. In the organization of a football team, as in everything else, there is a right way and a wrong way to begin, and if a school or a college or a university begins in the wrong way, they will probably experience a succession of reverses, and will not have an equal chance until, after a term of years, they learn their mistakes by experience, and a reformation takes place. On the other hand, those who have begun in the right way find things easy to their hand. With reasonable effort, success comes at least in a fair proportion of years, and many of the evils attendant upon an unfortunate policy not only do not trouble them, but are absolutely unknown. There are three cardinal points to be observed in arranging for college athletics, and those are to secure the support of the faculty, to insist upon a clean record of candidates in the matter of pure athletics, and to obtain the sympathetic backing of the college or school.

Where no Team has Existed. In organizing a football team in a school where there has never been a team, the first thing to be done is to approach the head master and obtain his consent and support. This can usually best be done through influential graduates of the school, for their opinion in affairs is naturally of far more weight than are the desires of the boys themselves, and it is better form for the request to come through them as intermediates. The plans should be thoroughly set forth, and, if consent be obtained, as, barring some unusual reason, it is pretty sure to be, a school meeting should be held, and these graduates should address the boys there assembled. They should explain in detail the value of the sport as a means both of
developing the individual who takes part, and also as a factor in stimulating loyalty to the school and binding together all the members in a stronger sympathy. Love of country in a man is only a growth of the feeling that makes him loyal to his college and loyal to his school, and competitive interscholastic and intercollegiate sport is a very strong factor in developing this side of character.

Committee in Charge. It is well at this first meeting to elect a committee consisting, say, of one graduate, one member of the faculty, and one representative of the school, to act as an advisory committee. This committee should report at a later meeting, formulating a plan of action which may properly consist of the election of a manager, and an assistant manager, from the school. These two, with the aid of the advisory committee, should have charge of the laying out of the field and the securing of candidates for the eleven. After a few days of practice they should appoint a temporary field captain, who should have charge of the men, and under whose directions the practice should be carried on. He will appoint a captain of the second eleven, and for perhaps two weeks be in sole control of the field practice. At the end of that time the advisory committee, the manager, and the field captain should hold a meeting and select some twenty players, who should then, subject to the approval of the advisory committee, elect a permanent captain.

Policy for Further Management. After this establishment of the sport, the manager and assistant manager of succeeding years should be annually elected by a mass meeting of the school, the assistant manager always being supposed to succeed the manager unless there is some stringent reason for breaking the line of succession. The captain in following years should be elected by the team, those members only having a vote who have played in part or the whole of the match that is classed as the important contest of the year.

Permanent Advisory Committee. In subsequent years the advisory committee may well be increased, and may consist of two graduates elected by the graduates of the school, two members of the faculty, appointed by the trustees or
named by the head master, and the captain and manager ex officio. This committee may or may not have executive power, but, if it seem best to vest them with more than advisory powers, such powers should be conveyed to them through a vote of the school at a mass meeting.

Formation of the Association. A constitution should be drawn up, covering all points, both as to the powers of the various officers and also as to the right to vote. It may be best to give every member of the school the right to vote; or, it may seem better to qualify this right by the formation of an association, every member of the school who subscribes a certain sum being a member of this association, and so possessing the right to vote. The sum need not be large - merely sufficient to show an interest in the project. The subscriptions may be annual, or simply a certain sum paid in bulk, making the subscriber a member during his school course.

Practical Management. To return to the practical work. As soon as a team is organized it is time to consider the question of a coach. In the large universities there are naturally many graduates of the schools, and it is, therefore, not difficult to secure in this line the occasional services of some alumnus. It would be well, were it possible, to have a regular coach, - one who could be on hand every day, - but next best to this is to arrange for a succession of coaches coming each for a short time. The captain must then do most of the daily coaching himself. Fortunately, in almost every properly regulated school to-day there is upon the faculty some man who is thoroughly posted upon college and school athletics, and who is capable of giving the boys all they require in the way of special coaching. Under his charge should be placed the general direction of the team's progress.

University or College Organization. As the work of organizing a team in a college or university is along almost similar lines to those here laid down for a school, it is not necessary to cover it again in detail. An association should be formed, constitution adopted, manager, assistant manager, and advisory committees elected, as described for school organizations.

Building up of a School of Coaching. In the matter of coaching and the selection of coach, the situation is somewhat more complex, for it is almost imperative for the eventual success of the sport at a college or university that the work be begun under the supervision of a thoroughly competent coach, who then may educate a body of coaches to assist him in the work, and eventually establish a strong system. If this be properly accomplished at the outset, the continuance of it, even in the absence of the original coach, will not be a matter of difficulty, and, in the end, the college or university will have a number of graduates who can, by working together, carry the team on from year to year. To organize such a body of coaches and to get the system in working order is only a matter of care and willingness on the part of the graduates. They should devote all the time possible to the matter, and be present, not only on the field, but also at the meetings off the field, to discuss the whys and wherefores of the proceedings. It is well that while the first appointed coach is with the team, some one of these graduates be selected as the one who shall afterward hold the position of head coach. If possible, a man should be chosen for this position whose business or profession is likely to keep him permanently in the university town. If this is not possible, try and find some graduate with leisure and a strong inclination towards clean sport who will accept this responsible charge. Although at first he may be no better posted than his companions, he will from an earnest study of the sport, coupled with his permanency of position, become the actual as well as the acknowledged head of the coaching staff. He in turn should do all in his power to build up a school of coaches, and use all efforts to have the desirable ones return year after year. By such a method of organization, and the establishment of a sound system, that will be carried on season after season, the very best results will be obtained, not only in point of deriving all the possible benefit from the sport, but also, what appeals more promptly and directly to the undergraduates' desire, in the greatest number of victories won.

## CHAPTER II

## TRAINING A TEAM WITHOUT A SECOND ELEVEN

First Decide whether there is a Second Eleven. The first thing a captain or coach should do upon taking charge of a team is to find out whether he is to have a second eleven or not. A great many teams presumably practise against a second eleven, whereas in fact there is no second eleven, and a frank confession of this at the outset would save a great deal of wasted time, and the result in the form of a finished team would be much more satisfactory.

There is no second eleven if the captain cannot rely upon having over twenty-two men at least out every day. To have twenty-five men out one day, and nineteen the next, almost invariably results in a long wait on the second day in the hope that the three extra men which are necessary to complete the second eleven will show up. Many a day is wasted from delays of a like nature, which a frank confession of the inability to have on hand a second eleven would turn into a satisfactory practice, for it is possible to get fairly good work and a moderately able team without the presence of a second eleven. In fact, it is almost easier to get a well-drilled team without a second eleven than with one.

Practice Possible without a Second Eleven. There are many teams in this country, representing colleges and schools, as well as athletic clubs, where the presence of a second eleven for daily practice is out of the question. It is always a study with the captain in such a condition of affairs as to what he can make out of his men, and how he shall go to work to develop the team. Let us take up first the points in which he simply follows the established precedent of teams that play against a second eleven. The second eleven is not used in the morning when practice in kicking, catch-
ing, and passing takes place. The second eleven is not used to any great extent when the first eleven are walking through their plays and practising the formation of interference. The second eleven is not used to assist in signal practice. In all these points, then, a team is as well off without a second eleven as the team which possesses enough men to make an actual game possible. We thus see that a team may practise kicking, catching, running, forming interference, and getting through signals without the aid of a second eleven.

How to Split a Team. But a team cannot practise blocking, breaking through, breaking interference, or practical tackling without opponents. The simplest way to secure these opponents, therefore, is to split a regular team in two. It is always practicable to, as it were, bend the line over, and with one extra man for the centre, play the guard opposite guard, the tackle opposite tackle, and the end opposite end, thus giving both sides of the line practice, and answering all the purpose of an ordinary opposition. Then, with four or five other men, the coach may have half-backs, quarter-back, and full-back on the opposing side. Thus with sixteen men it is possible to have a regular practice with the exception that it is directed on one side of the field, and criss-crosses are not available. But all the detail of blocking, breaking through, interfering, and breaking interference can be practised in this way with almost as good effect as in the regular line-up of university teams.

Drilling and Explaining. Beyond this the men can be much more carefully coached, and it is an acknowledged fact that the teams which have the least chance of playing with a second eleven are usually the best drilled in their formations. This is probably owing to the fact that the same amount of time is spent by these teams in going through their formations as the other teams pass in regular play. It is also easier to explain to and coach fifteen men than thirty, and when a coach is instructing a university team in the midst of a line-up, it is generally necessary to explain to a great many more men than the first eleven.

Less Chance of Injury. Another advantage of practising without a second eleven is that there is less chance of
injury, and fewer men will be required to last through the season. A great many of the injuries that are received in the university teams come during practice, and here a team without a second eleven has a double advantage in that it preserves its men intact, and also that it is possible for such a team to practice with the same men day after day, until each one has his own part to perfection and they all move together like clock-work.

Daily Discussions. Another valuable feature that should be seized upon by the coach or captain who is without a second eleven, is that of daily talk and discussion on the points likely to arise. Some of these talks should occur on the field during intermission, while others should be held in the evening, so that there may be plenty of discussion and plenty of actual practice. It is possible, also, to take the men in small divisions, where the numbers are light, and practise, if the hours are short, sometimes both morning and afternoon, taking, for instance, six rushes at a time, and teaching them to block and break through, make openings, lift the line back, and do the other thousand and one things that there are for the expert forward of to-day.

Special Rules for Practice. The ingenious captain or coach can also devise many methods that will insure him as much line-up practice as is good for the men by simply making certain rules, in force for the time being. For instance, as mentioned above, playing entirely on one side of the field without criss-crosses or any plays that involve running on both sides of the centre. Then he can bar out kicking, or he can play a kicking game only on one side of the field, so that but one end has the opportunity of going down. He may also take an occasion when double passes alone are used, and with his extra five men put them all up into the line instead of using half-backs and backs. On the whole, no captain should be greatly grieved over the fact that he has but fifteen or twenty men, for it is better to have fifteen or twenty men that will work hard and practise with regularity than to have thirty men, only ten of whom can be relied upon to be on hand every day.

Strict Rulings. The practice when without a second
eleven should be as much like a game as possible. By this is meant that each man should do his level best, and there should be strict ruling regarding fouls and unfair tactics of all descriptions. There is nothing that causes the practice to degenerate so rapidly as to allow holding in the line or unfair work of any kind. It is as necessary for the practice of a team that has no second eleven that there should be an umpire as it is for regular university practice. Then, too, the performance of the men should be thoroughly conscientious. Each man should go through his part of the play whether there is an opponent against him or not, exactly as he would in a match. There is nothing to drive him to do this save his own conscience, and that must be occasionally stimulated by the captain and coach.

Lack of Interest. How to Overcome. The greatest difficulty in playing without a second eleven arises from lack of interest, and this may be surmounted in a measure by special encouragement given to each man when he performs his work well, and by establishing a firm conviction that in order to play on a winning team each man must put his whole heart and soul into the work while on the practice field.

Outside Games Necessary. In order to carry out the ideas above expressed, it is advisable that as many practice games as possible with outside teams be arranged. These practice games should serve two purposes. First, they should provide for that part of the hard work which is necessary toward making a man able to endure; and secondly, they should be used as tests to find out wherein the plays that are being practised are weak, and what special parts of them need alteration. The captain and coach should also secure considerable valuable information from these practice matches as to the pluck or "sand" of the men on the team. It is very easy for a man when playing against his friends to exhibit plenty of courage, but when he faces a determined opponent, who is a stranger to him, he may show the white feather, and it is for this reason that the men should be closely watched in practice games, and action taken on any hint of shirking.

Tests. To conclude briefly, the great difficulties which assail the captain and coach when so short of men as to make a second eleven impossible are those of lack of interest and lack of satisfactory tests. All the other difficulties can be overcome with a little ingenuity, but these two main ones must be always on the captain's mind, and he must work hard to stimulate interest, and watch closely the practice games, which must be to him the tests that ordinarily come through the aid of the second eleven's work.

## CHAPTER III

## INDIVIDUAL POSITIONS

End Rush. Experience and Physical Characteristics. The position of end rush is one capable of the highest development of any along the line. For here a man can be at the same time a part of the rush-line and-also a part of the half-back division. It requires cleverness in the highest degree, and experience is one of the most necessary qualifications, although it sometimes happens that a man with a natural instinct for the game will make such progress as to really entitle him to the position at the end of a single season. This is the rare exception, however, and usually the ends are men who have served a long apprenticeship in preparatory schools as well as on the second eleven. The end needs the greatest attention of the coach. Personally, a man for this position will probably be a lively, dashing player of wiry build, with no superfluous weight to carry, but muscular and quite capable of making every pound of that weight tell. For this very reason he must not be worked to death, and yet he must be kept up to the best performance always.

Condition a Prime Factor. For the good of the rest of the team in making their plays what they should be, the end must be put in condition early, and kept in good shape all the time. Hence, as noted in another chapter in this book, the coach must provide himself with a good supply of end material, and work the candidates alternately, so as to keep them all fast and active.

His Defensive Play. On the defense, outside of his relation to the tackle, the end has to be prepared always for short kicks, and for quarter-back or "on-side" kicks. He should be ever ready to warn his line if he sees from his position of greater vantage any unusual formations being
made, or any unaccountable preliminary move on the part of the enemy. He must also be ready to come back and assist his full-back when that player is handling a kick, and he must be quick to see and form an interference should his catcher have the opportunity for a run. The really clever end may often be made the director of this play, and may call out to the catcher the instructions as to running or heeling the ball, although this is preferably the work of the backs. The end is also the man to be ready for a bad pass by the opponents, that goes past the intended recipient toward the edge of the field. A fumbled pass is usually too far in toward the centre for the end to venture, and the tackle should lunge after that kind of a pass; but high passes, or passes too far in front of the runner, will come the end's way, and quickness to seize upon such an opportunity may mean a touch-down and perhaps a game.

Meeting Interference. As to the end's duties in meeting interference, one might almost fill up another chapter with this one phase of his play, for it is all important. But it is "a life that must be lived" to be appreciated. Calm, coldblooded directions may help a man to learn to kick, or to run, or to block, but they seem almost tame when applied to that part of football known as breaking up interference. The best description one can give of an ideal end in this respect is that he appears to be standing before an advancing wave of men as a swimmer about to plunge through the surf. As that wave strikes him he seems to cleave it apart, and, without apparent effort, appears standing behind the wave in the same expectant, waiting attitude as when it struck him.

Reaching the Runner. There are ends, and there have been ends, who apparently accomplished this, and, if one can get close enough to watch the eyes of such an end, he sees them fastened upon the man with the ball, and, whatever motion he may make with arms or shoulders in breaking the interference, he never takes his eyes off the runner, and hardly winks even as he is struck. All this seems too strong to be true, and of course even the best end cannot always thus make way through and reach the runner. When the
runner, for instance, is hugging his interferers very tightly, the end has to keep beating at the interferers with his hands and arms, pushing them, and backing away toward touch, leading the play out across the field, and slowing it up so that while he, by keeping comparatively clear of the mass, forbids the outlet of the runner, some one, say the far tackle, coming from behind, reaches the man with the ball; and no ground, or but very little, results from the play. Again the mass may be moving too rapidly for such tactics, and yet too close to the runner to make it safe for the end to cut in. Then it may be necessary for him to go down against it, and bring it over him, taking a last chance on his knees of seizing the runner as the pile passes over him.

The layman, reading of such possibilities of end play, may be inclined to disbelieve in the willingness of a player to take such chances. It does look hard in cold type, but there are a dozen ends on every 'Varsity field ready to do far more dashing and plucky things than merely meet a formed interference.

On the Offensive. The duties of an end on offense are equally arduous. With the rapid advance in the science of the game in the last few years, he has become both a line man and a running half-back, - in fact, a good end may be used, on a pinch, as a half-back, either from his regular place at end, or he can actually substitute if there be a shortage in halves. As a runner from his own position he receives better interference than does the half or full back. Then, on the other hand, when the far half on his opposite end runs, he makes a most important part of the early interference by boxing the tackle or rush-line half.

On Kicks. Finally, on kicks, he swings out well in the line, clearing his obstacle, and goes down madly upon the receiving back, ready for a fumble, or springing like a cat upon the man who attempts a run. On a quarter-back kick he gets on-side, and, with perfect confidence, dashes forward and catches the ball on fly or bound, and may even get in a run at the end.

The Tackle. Strength and Dash. Saves the End and Rush-Line Back. After all this work by the end there is
still left a little something for his more moderate-moving comrade - the "tackle" - to do. He, the tackle, has the pounds and the strength, and must take good care of his end and his rush-line back. He will not let them pound themselves to pieces against the heavy packed oncoming mass. He knows that they are both good men, and will not hesitate a moment, when it becomes necessary, to smash anything that comes, and for that very reason he appreciates the unsoundness of any play by him that shall leave heavy mass-meeting for these lighter and more high-strung bundles of nerves that flank him and pick the runner with an almost unerring certainty. He, the tackle, therefore, throws himself in on the instant of the snap-back, and if he does not hit the runner he strikes the interference hard, and smashes as much of it back on the runner as he can; he stays with it as long as he can, and when he goes down and it goes over him he grabs what seems to be the tail end of it, and which usually is the man with the ball. But if he gets nothing, he knows from his feelings that he has opened up a hole in it, and that one of his two tried friends is probably through that hole and anchored on the runner.

Play on the Offensive. On the offense he blocks, and blocks hard. When the run is coming his way he blocks long; when it is going on the other side, he comes away quickly and follows close. He may make runs himself. In that case he plans various methods of getting away free and cleanly from his vis-a-vis; he hugs the ball tightly as he takes it from the quarter, and, keeping his head down low to escape observation, he plunges into the line, never stopping as long as he can make his feet go.

Play on Kicks. On kicks, if he be on the kicker's side, he blocks close and hard, and when he hears that thump of the leather that tells the kick is made, he gets down the field. If he be on the other side of the line from the kicker, he only blocks short and sharp and moves down.

The Guard. Steady and Powerful. The guard is a peculiar type of man. He is apt to carry with his added pounds an amount of laziness and good-natured carelessness that requires all the coaching possible to eradicate. He ought to
L. of C.
be a powerful fellow in legs, body, and arms. The more quickness he has with these the better ; but he must, to play the modern game, be heavy. His duties on defense lie in assisting the tackle, and in protecting the opening between himself and tackle, as well as between himself and centre. He ought to plow through hard and low, but with enough swing to insure stopping any man trying to come through outside him.

A Block to Masses. When he meets the interference he should never be lifted up by the push, but must settle down, and, if he finds it crowding him back, go quite down on to the ground before it, and bring it to a standstill. He cannot, in the close quarters of the centre, always tackle low, but he should always bend back anything he gets hold of, and should be no gentle weight when he hangs himself upon the man with the ball.

A Protection on Offense. On the offense, that is, when his side has possession of the ball, it is his duty to see that the quarter-back is thoroughly protected. That is his first duty, and until he has accomplished that he should attempt nothing else. There is no more fatal blunder than that of allowing the quarter to be interfered with. But after that duty is performed, he has, in the running game, to rake openings for plays on his own side the line, and to get out into the interference in plays over on the far side. Like the tackle, he may also be used to run with the ball, both from his position and by dropping back.

The Centre. More General Activity. Having thus covered the places on both sides, we should complete the discussion of the duties of the linesmen by a description of the work of the centre. He, like the guard, is a man of weight. But, while in the case of the guard we need, or rather expect, more general activity in breaking through, in the case of the centre we require more steadiness. For it is indispensable to the success of any play that the ball be snapped back properly to the quarter, and that uniformity of movement be preserved at this point in the play.

How to Stand. A centre must be strong on his legs, and must devote a great deal of practice to securing a good poise.

The method of standing with both feet nearly on a line is preferable to placing one foot back farther than the other for a brace, although a centre who can stand in the former way may occasionally rest himself or bother his opponents by a change.
Defensive Play. In defensive work, that is, when the opponents have the ball, he should endeavor, while protecting the centre openings, to throw his opposing snap-back over on to his quarter at times, and he should also keep him very nervous about the openings. He, the centre, may go through himself, or he may help a guard through, or he may make an opening for his quarter to get through. Like all line men, he should have a variety of methods for accomplishing his object, and should seldom do the thing twice in the same way.

The Quarter-Back. Coming now to the men behind the line. The quarter-back forms the connecting link between the forwards and the half-backs. He is the man through whom must come almost every play that is made, and upon whom, therefore, rests more responsibility than falls to the lot of any other one of the eleven men. No position can be so constantly important as this.

Practically Captain. We find in him the practical captain of the team, so far as the direction of rapid play is concerned. It is possible for the captain to give signals from some other position, and thus run the team instead of permitting the quarter to do it; but thus far such a method has not proved so generally successful as has the plan of allowing the quarter to give the signals upon his own responsibility, the captain countermanding any play of which he disapproves. There is little doubt that with a fairly good quarter-back this works more satisfactorily than any other plan. We need, therefore, in this position, not merely a clever player of the game, but a general as well.

Clever and a General. Select Brains. Select then, for your quarter-back material, as much brains as can be found in any of your candidates. Then re-select again, taking the coolest of the lot, and finally pick out from these the men whom you class as the most capable in judgment and the
most reliable in emergencies, - the chosen few who would never give up, no matter what the odds, - and you have the men upon whom you can afford to expend your energies in teaching the art of quarter-back play.

Siae of Quarters. As a rule, quarters are not big men. There are several reasons for this: first, the cunning and strategy that the position demands seem inconsistent with large frames. Then, too, the amount of bending over and quick movement necessary in a quarter is cruelly hard on a big man, and he usually gets very slow after a half hour of it. Nor can the big man, as a rule, succeed in getting off quickly enough to lead the interference. Barring these exceptions, however, there is little reason why a large man should not play quarter.

Cheerful, Alert, and Confident. A quarter must keep up a cheery disposition ; he should be absolutely above discouragement (save in his own playing), should always have confidence in his men, and should stimulate them by his very presence to do their best. He should never forget that every time his team lines up, his backs look at him, and they should always see him alert, ready, and confident.

Handling the Ball and Steadying the Line. In handling the ball he should learn to pass from either side, and to either side; he should learn to get off at the same time. He should practice holding the ball for the runner to take from him on short line bucking, and should swing himself in behind the runner on plays of this nature with all the pounds of push he can add. It is his duty to "jolly up" the guards to their work, to keep the centre steady, and on the defense to be ever ready for an opening, while never making the blunder of being drawn into a preconcerted trapopening by the opponents. He must not only do more than any other man on the team, but he must think more.

The Three Backs. Becoming All Alike. The duties of the three backs on the offense, that is, when their side has possession of the ball, are comparatively the same, even though two of them are called halves and the third the fullback. One of the three runs, and the other two assist. For the variety of the play the reader is referred to the chapter giving diagrams. But there is something to be said regard-
ing these players, aside from giving each his exact position for any running play. There are no men on the field who need so much confidence in each other, so much thorough reliance, one upon the other, as these three.

Confidence in Each Other. They should be essentially en rapport. When our full-back takes the ball and goes up with it, there should be two men with him who will fight like demons to help him gain an inch, who will strike the line with him as though it were but a yielding hedge, and who. will drag him along somehow for his distance. And when the half goes up, he knows that the other half and the fullback will do the same for him. On this account backs should never be overworked. They need the fire and dash, and their game depends upon it. Don't take it out of them by sending them too much. They are of finer material than the line men, and must be kept fit by less work and more encouragement.

Build and Character. Backs should be, in physical build, not necessarily large, but well put together, and should be men who possess that art of control over all their muscles which is commonly termed "having the knack of doing things." They should never be clumsy fellows, because such men inevitably lay up either themselves or their comrades. Many prefer short, thick-set runners, but the success of taller and more slender men in line bucking has demonstrated the fact that it is legs rather than body that help a man through a line. Besides, the taller men can usually out-punt the shorter ones, and.hence, as a kicker (and two of the three should be good kickers), the long leg has the advantage.

One a Leader. One of the three men back of the line should act as a sort of leader, and give all commands regarding who should catch a kick, whether to run or not (this latter to be only advice, for the catcher himself has the final right of judgment here), and also general orders as to which opponent to take when protecting a catcher. Not only should these three men have, beside the daily practice at the lineup, kicking practice, but they should be especially drilled upon catching punts, the quarter being included in the practice, until, in the last two weeks, it may be determined which two of the four are the most certain catchers.

## CHAPTER IV

## RELATIONSHIPS OF THE POSITIONS

Theory of Line Defense. If one could imagine that the arms of the players in the rush-line were as long as their possible tackling distance, the theory of the rush-line defense would be to have each man's finger-tips touch those of his neighbor, while the outer arms of the end rushers reached the touch line. Some teams of the past have been so nearly perfect in defensive play and tactics as to reach very close to this stage of the theoretical ideal. Beginning, then, at the outside, we say to the end and the tackle that the space from the farthest reach of the guard, out to the touch line, is in their care. They have a rush-line half-back to aid them, and thus can count upon a certain greater freedom of action than in the old style of play, when the half-backs were kept more in the reserve. To limit the responsibility, it is fair to say that the end is solely responsible for the protection of the side line ; that is, no matter what the excuse or provocation or temptation may be to draw in toward the field itself to help out the tackle, there is but one law for him that must not be broken, and that is "guard the edge." Here again the addition of the rush-line back has made it possible, by the style of team play spoken of in the chapter on that branch, for the end to go in and help the tackle under certain circumstances.

Triangular Relation between the End, Tackle, and Rush-Line Back. The relation is almost a triangular one of tackle, rush-line back, and end, and any two of them may, at a pinch, "go in," but three never should go in. Suppose the play is directed exactly at the tackle. Some rush-line backs play on the line with the tackle. In that case the tackle or line-back goes through, according as one or the
other has the better opportunity. Whichever it is, he meets the interference, and endeavors to break it up, while his partner comes on behind, and takes the second turn at it, the end, meantime, covering the outside, but coming in as far as he can with safety, so that, if the interference actually engages the two, tackle and half-back, the end may take the runner as he comes free.

A Safe Stop for a Well-Protected End Run. Suppose, now, the run comes for the end. The inside man of the three is likely to be blocked or so tangled up in the interference that getting through in time to be in front of the runner is practicably impossible. Hence he can then be regarded as the safest man to help out the end by immediately going out, and as he goes out the end can come in, and with the tackle (or the second man, whether it be the tackle or half-back) smash the interference.

Having thus clearly defined the relationship of the end and the tackle in their defensive play, we make it possible for a coach to describe the duties and qualifications of both players with far greater directness than when merely handling each position by itself.

The Tackle's Inside Assistant. But the tackle has, like the end, some other good friends who are ever ready to back him up, so that he need never feel alone in his position. We have already spoken of the end and the rush-line back, and how, with the tackle, they make up a trio that on the defense should be a hard crowd to pass or put out of the way. On the inside the tackle has still another helper, and one, too, of a different character. In the case of the end and half-back, the tackle has two indefatigably active workers, who can either of them move with greater agility than he; but, as we have already noted, the tackle knows that he must never rely upon these two for heavy work save in the direst extremity. In the guard, however, he has a helper of quite another type. Here is a man not only the tackle's equal, but usually his superior, in the way of strength and weight, a big fellow who can plow into the heaviest mass like a bull, and who can always be relied upon to lift, and lift hard, when the attack is jammed up into the centre.

For this reason the tackle always tries to turn the heavy plays in toward the centre where the guard and centre will be met, and where, if weight be required, it is always to be found.

Guard and Tackle on Fake Plays. In mentioning the tackle's intimate relation with his guard, we should say that this relation is not of such great importance as are the duties of the tackle toward the end, and his play with the rush-line back, save in mass plays and fake plays. In these two the guard-tackle play becomes vitally important. We will take up the fake plays first.

Suppose that the full-back pretends that he is about to kick, but the play is for the quarter to make a short pass to the half, who jumps straight ahead and tries to go through on his own side of the line. Although this play is frequently attempted outside the tackle, it is not a showy play, and seldom a successful one when sent outside. The trouble is that the necessary pause or length of pass is too great, and one of the three, tackle, rush-line back, or end, "nails" the man before he can get through.

The play - if it be properly worked as a "fake" - is far more likely to be a good one when directed inside the tackle. Here, then, comes the relation of guard to tackle. The guard is big, and not as lively as end or tackle or rush-line back. But he can project himself with a plunge a long distance on account of his size, and it is his duty to do just this in the case alluded to. He throws himself sidewise at the breach which he is likely to see just as the man lunges forward at the opening. He usually barely reaches him, but comes near enough to get his hands or shoulder on the runner as he shoots through.

Relation of Centre Trio and Quarter. The relation of the centre trio and the quarter complicates the position of guard, for, in addition to the above-mentioned duty toward the tackles, the two guards, on defensive play, work with the centre and quarter. The principle, as will be seen in the chapter upon team play, is that of always getting some one man through on every play. It is not always that the man is the quarter. The guard and centre may open up for him. But the two guards may also, on occasion, open
up for the centre to go through, or the centre, quarter, and one guard make it so lively that there is an open space for the other guard to get through. All this can be planned and be in the hands of some one man of the four, who, as they are lining up, gives the signal indicating which method is to be used. Still again, it is sometimes played by the centre trio "stretching" the opposing line out as far as they can. Here the tackles also assist, and the quarter may even come up into the line himself. This is not a safe method to be played too often, but is a very disconcerting one to the opponents when used judiciously.
Relations on Kicks and Offensive Play. This covers practically all the relations between the line men and their attendant backs on defense. In cases of kicks by the opponents, the relations are more properly a separation of one or more of these backs from the rush-line and the attendance upon the receiving full-back. The quarter may be the man to go back, or the half-back. In either event the duties of the rush-line are, first, to attempt to spoil the kick or the pass, and then to assist either in interference for a run in, or, if the kick be returned, to get down the field. The ends get back as rapidly as possible to the aid of the catcher, interfering as much as possible with the opposing ends, and, in case of a run back, acting as the primary interferers.

Relationships between the various positions in offensive play are so unlike those on defensive play that no general rules can be laid down. We have noted a few, but each play forms a rule by itself, the first merit of many plays consisting in the fact that a different method is followed when the initial part of two or more plays may be exactly alike.

## CHAPTER V

## BLOCKING

When to Teach It. Blocking is the first principle in offensive playing. There can be no successful offensive work without good blocking. Hence it is the first rudiment which a line man must master, and too much attention cannot be given by the coach to this branch of rush-line work.

It is a well-established maxim that successful blocking must be taught in the first three weeks of the season. In order that there may be no mistake about the thoroughness of the instruction in blocking during this early period, it is well to require of the rush-line that they shall play at this time without interdependence or any relationship between man and man. In other words, compel the team to win games from their earlier and weaker opponents of the season with the excellence of individual blocking only. Let there be no "theories of the defense" given to the line men until they are almost able to do without them; in other words, until they are able to meet strong opponents, and maintain their position by individual, unrelated efforts at blocking.

Two Divisions of the Subject. The rules for blocking may be divided into two parts: Instructions covering the general ground of blocking for any position in the line, and instructions which apply especially to the individual position and work of the player. We will take up the two divisions in their order, and give first, as briefly as possible, a few instructions for general blocking, under any circumstances and in any position.

Position in Blocking. As a rule, it is wise to get as close as possible to the man you wish to block. Take your
position squarely in front of him, with legs and feet so placed that, while you can readily move in any direction, you are, nevertheless, so firmly planted upon your feet, and so squarely braced, that your opponent cannot push or pull you off your pins, or so far unsteady you that he can get free before you can recover.

As to the Feet and Legs. The position of the feet varies for different players; for the centre trio, the feet should be almost on a line latitudinally with the body; that is, neither foot should project to any appreciable extent ahead of the other. For a tackle, however, one foot should be slightly behind the other, so that the toe of the rear foot will be about upon a line with the heel of the forward foot. This is about as wide an opening latitudinally as should ever exist between the two feet in successful blocking. A wider opening may give a better brace against a backward push, but it will make a man's movements much slower.

Before deciding just where your feet should be placed in blocking, make several tests and ascertain the exact position which you can best assume, and in which these two essentials may be provided for, - namely, that you can get away quickly; and that you cannot be knocked off your pins in any direction by the most savage onslaught of your opponent. A little experimenting will quickly determine the weak and strong points of any position you may assume. Above all, do not straddle, and stand on your toes, rather than on your heels or on the flat foot. The heels should be used as secondary supports, against which you come back for a firmer brace, while your position on your toes will tend to extreme agility, and enable you to follow every movement of your opponent without loss of time. Keep your feet under you in any case, so that you can be firm upon them; and then vary your position with every movement of your opponent. Keep the legs bent, and apply your power rightly. One pound of force rightly applied in blocking is better than five pounds applied at a disadvantage.

General Movement in Blocking. Keep as close to your opponent as possible. Watch every movement that he makes; wherever he goes you are to follow; especially
watch his eyes as a cat would watch a mouse. Do not look at his canvas, his belt, or', worse still, his feet. If his eyes cannot be readily seen in the position which you have taken look at his head. Keep your own head up. The ideal position for your body is to get low, well under your opponent, so that you can lift him up and run him back, if possible, the instant the play starts. Furthermore, by getting very low, you do not expose your chest to a straight blow. Keep the body high enough to prevent your opponent from seizing you by the head as he goes through, as this would speedily put you in a position where you would be of no possible help in checking the play. Concentrate your mind upon the problem of how to plunge into him at the moment that the ball starts. His eyes will probably be upon the ball ; your eyes should be upon his eyes. The moment that you plunge into him, run him back out of the way, if possible, and make as large a hole as you can. If, by any mischance, your man should get by you, follow him, and run into him, or give him a running blocking-off before he can tackle.

Comparison with Sparring. The best general idea of blocking may, perhaps, be gained by comparing it to sparring. In the latter sport your opponent is trying to hit you on some part of your body. In the present instance the same thing is true, if qualified by the fact that he is only doing this to aid himself in getting you out of his way; in order to parry his attack you must watch him, and if possible jump into him before he can plunge into you. : Go into him hard enough, if possible, to keep him out of the play, and then yourself instantly join the general interference. Strive always for the ideal position, which is to get your body directly across the path of your opponent in breaking through, so that your two bodies would form the shape of the letter X. Finally, listen closely for the signal, and let your blocking go with the play.

What is Body-Checking? Body-checking is a term which is generally synonymous with blocking, but in reality it is blocking in its highest development, for all blocking, properly, should be done with the body. The player should understand that the arms alone are never strong enough to
block a man successfully ; only to reënforce and supplement the action of the body, should the upper arms be employed.

A Common Fault with Young Players. A general error with inexperienced players is to try and reach too far with the body, and this weakens its resisting force. Whereever the body goes, the legs and arms should go with it. Keep the legs well bent under the body, until you are ready for the final movement of straightening up and putting all your force against your opponent as the ball starts in play. You can scarcely go into your opponent too strongly at this last decisive moment. The old expression, often used by coaches, "pile into him like a ton of bricks,". is not so far wrong after all.

Other General Hints on Blocking. When you are blocking an opponent close to the line, do not yield an inch. Be careful not to let him get a grip on your outside arm, for it would be of immense assistance to him in going through the line.

Remember that your brace must not be merely against a backward push, but equally against a forward pull, or a sideways plunge. In other words, it must stiffen you against a throw in any direction.

Always block your man away from the play. It is fair to assume that you can successfully check his onslaught for a brief interval of time; and your blocking should be so directed as to prevent him from reaching the runner at the point at which the runner will be after this first interval has elapsed. In other words, if you are blocking a tackle for a run around the end, you would naturally block him on the outside, for it would be reasonable to assume that if you force him to go inside of you, he would scarcely get clear from you until the runner had reached a point from which your opponent could not check him, except from behind.

Be careful in your blocking not to give away the direction of the play. This is a fatal error, into which the inexperienced player will fall ufless he watches himself.

Different Kinds of Blocking. Certain special occasions call for slight differences in the method of blocking, and it may be well to say here a word on three of these variations.

We will classify them as "body-checking," "blocking hard," and "blocking long."

Body-checking. Body-checking implies temporarily checking the progress of an opponent, rather than preventing his final movements. It is well illustrated in the work of an end going down the field under a punt; while not lingering to block before he starts, he is, nevertheless, expected to slightly body-check an opponent in the rush-line, with a view to giving more complete protection to his own kicker.

Blocking Hard. Blocking hard is a term used to designate the kind of blocking which a man must do who is stationed on either side of the hole through which the runner is to pass. When we tell a man to "block hard " it means that the exigencies of this particular play require of him a special effort or spurt. He is to play his strongest card; he is to sharpen every faculty and redouble every energy. The whole success of the impending movement depends upon him. His blocking for this one encounter must be absolutely sure. This is all summed up in the brief instruction, "Block hard."

Blocking Long. Blocking long is a term used to cover those exigencies which require that the resistance to the opponents' movements shall be maintained during a considerable interval of time. When a player "blocks hard" he concentrates all his energy, and expends it in the briefest interval, during which he has his opponent completely at his mercy. If, on the other hand, he "blocks long," he so husbands his resources and his strength that he keeps his opponent from interfering with the play for a period of time nearly twice as long as the usual period covered by ordinary blocking.
"Long blocking" is, perhaps, the most difficult of any for the average player to acquire. It is not easy to lay down special rules for his guidance. It is, rather, a faculty which will come to him intuitively, as he sturdies different opponents and learns more of the principles of primary blocking. He will find that there are certain methods by which he can block one opponent for a considerable interval of time, which will
be wholly useless when he tries them upon another opponent. Different men have different styles of play, which must be met by different tactics. In general, the position we have described, in which the bodies of the two men take the form of the letter X , is a sure position for long blocking.

Special Instructions for Blocking by the CentreRush. The problem of the centre-rush on the offense has been rendered much simpler by the recent legislation which forbids the opposing centre from interfering with the ball until it is put in play. Before this law was enacted, the blocking of the centre-rush was one of the most important features in the play of the line; but having now the exclusive control of the ball until it is snapped, his difficulties are greatly lessened.
There are various ways for the centre to block his man after he has put the ball in play. Of course, he knows the exact instant when the ball is to go back, and in this respect he has a great advantage over any other man in the rush-line. He can plunge forward into his opponent on the instant that he snaps the ball, gaining a foot or more by the very force of his plunge; or, if his opponent is down too low, he may fall on him. Beside this, he can frequently lift him to one side or the other, and in any event he has little difficulty in protecting the quarter, so far as interference from the opposing centre is concerned.

As for the position of his feet, it is a great advantage if he can keep his feet on a line, neither foot being in advance of the other. It is possible to take such a position, and be firmly braced in all directions. If, however, the centre finds it difficult to thus brace himself, let him take the position which the tackle would assume. This might be described as almost identical with the position of a sprinter "on the mark." The body bends at the knees and hips; and the support being on the toes, with the joints very springy, the position is altogether a very comfortable one to maintain; although it can easily be proved that the position first recommended for the centre is by far the better one to adopt.

Special Instructions for Blocking by a Guard. A
guard in blocking has several duties to perform, and we will mention these duties in the order of their importance, for this is the order in which they should be in his mind, and in which they should receive his attention.

His first duty is to protect his centre in making the snap, and his quarter in securing the ball and making the pass; his second is the necessity of blocking his opponent long enough to prevent him from reaching the runner; next, the making an opening on either side of his position in the line; and lastly comes the necessity of getting into the interference himself as quickly and as strongly as possible.

It follows, naturally, that in performing all these various duties he will be somewhat limited in his freedom of movement, and his position must necessarily be more or less controlled by the exigencies of the occasion. In general, the guard should stand with his feet well spread apart. It is a safe rule to keep the legs as far apart as possible, up to the limit of not hindering his quickness and activity. The advantage is always with the man who can earliest put his power into action.

A very effective method of blocking for a guard is what is commonly known as the shoulder-check, which consists in meeting an opponent strongly on the upper part of his hips with the outside shoulder. It must be borne in mind that the blocking of the guard is of greater importance than the work of any other man in the line, for his close proximity to the quarter-back makes weak blocking here a serious menace to the safety of the pass. The guard should be careful not to allow his opponent to draw him too far from his own centre. He may follow his opponent out a little, but the limit of safety in this direction is quickly reached.

The guard of all other players must learn long blocking, for this is the method which he must always employ when a kick is ordered. In general, no set rules need be laid down for the guard as to the placing of his feet; the better position, if he can take it, is to stand with both feet on a line; this will be hard to acquire and somewhat painful at first, but the advantages of such a position repay his efforts. All his blocking should be done with his body very low, and
bent fairly well forward. In this position he can be better braced, and not so much exposed to the rough handling of an opponent.

The guard's position in blocking will, of course, be different if he is himself to run with the ball. For this, it is necessary that he should get away free and clear from his opponent the instant the snap is made. He can sometimes contrive to strike his opponent in the chest, and then let the very force of his push or blow be his own impetus in the opposite direction. In any case, there must not be a moment's delay in getting clear. Whatever method will get the guard under headway in the shortest order will be the proper method to use.

Special Instructions for Blocking by a Tackle. Blocking by the tackle is but little less in importance than blocking by the guard. In certain plays the guard's position makes his blocking of greater relative value, but there are many operations in which the tackle bears a heavy load of responsibility for his blocking.

First of all, let it be understood that if the space between himself and his adjoining guard is occupied by any opponent, it is the tackle's duty to leave his own tackle and block this opponent instead. To use the language of the coaches, he must always "take the inside man." Thus, as a rule, the tackle will find that his blocking must be done in close proximity to the guard.

The position of the body differs somewhat from that assumed by the guard, for the tackle is a man whose activity must be much greater, and it will be better for him to take such a position as will make it possible for him to follow his opponent's every movement with lightning quickness. It will be better for the tackle to keep one foot slightly in advance of the other, letting the toe of the rear foot be about on a line with the heel of the forward foot. Keep well up on the toes, and avoid any tendency toward inertia. The tackle, in blocking, should be in almost continual motion. Follow the opponent closely, keeping well in front of him, and always on tip-toe, ready to start forward the instant the opponent attempts to go through. Expose no part of the
body as a handle which the opponent may grasp. Keep the head high enough to prevent his seizing it; keep the arms close to the body, to prevent him from seizing them; keep the chest in a position where it is not exposed to a blow.

Finally, keep yourself squarely in front of the man opposed to you, and as close to him as possible. Watch him sharply; listen for the signal, and try and get away with it; remember that agility is the first requisite, and never allow your body to rest upon your heels or flat foot when you are in action.

A Few Words to the End Rush. Nothing need be added to the instructions already given, as the bulk of the blocking in the line is done by the three men playing respectively at centre, guard, and tackle. With the advance of the modern game the end rush is called upon to do almost no blocking whatever. In fact, he rarely plays in the line opposite to his opponent, and the blocking he is occasionally called upon to do is to assist the tackle to pocket his opponent. This blocking is of a different class from that which we have been considering. It is rather more in the nature of running blocking, and corresponds to "riding off " in the game of polo. From his position in the line, the end plunges forward, meeting the opposing tackle with his shoulder, striking him as low as the hip, and endeavoring to reach him before he has come clear of his immediate engagement with his own opponent.

## CHAPTER VI

## BREAKING THROUGH

Importance of It. The complement of blocking is breaking through. Of the same importance that blocking is to the side acting on the offense, breaking through is to the side acting on the defense. Of the two, it may fairly be claimed that breaking through is perhaps the more important, for in its highest development it is sufficient, barring accident, to prevent the opposing team from scoring, without which, of course, no game can ever be won.

Reason for This. On the other hand, weakness in breaking through is one of the surest signs of the inferiority of a team. The whole object in defensive play is to tackle the runner behind his own line, and this demands that the line, of the opponent shall be broken through in less time than the ball can be advanced. It is not enough that the runner shall be stopped at the line. It may sound paradoxical, but if he can reach the line, he can always gain a certain distance beyond it. It is an old adage that when the runner is allowed to reach the line before being tackled, he can always gain his five yards in three downs.

An Indication of Spirit. Perhaps there is no single feature in football which calls for a truer courage and stoutheartedness than breaking through the opponents' line. It is the carrying of the war into Africa; it is the invasion of the enemy's country; it shows the courage of the player in the indication which it gives of his spirit. The player who repeatedly tackles behind his opponents' line is the one who cannot wait for the opponent to come to him in his eagerness to get at his opponent. He is the player who plays from a love of the game, rather than from any desire for personal distinction.

It has often been advanced as one of the arguments against football, that a comparatively small number of players on a team really play from love of the game per se. It has been claimed that in a majority of cases there is some other motive at work, - love of college, desire for notoriety, pride, etc. However true or false this accusation may be, there are men who play football from love of the game, and they will be found tearing through the opponents' line the instant the ball is put in play.

Instructions to Guard and Tackle. The rules for breaking through are the same for any position or any player. It is true that a different importance attaches to the breaking through of different players, and that a greater responsibility for breaking through rests upon certain players, but the methods employed are substantially the same in every case.

If any player could be immediately pushed through the opponents' line, it is probable that the guard would be, of all men, the most destructive, for he might, by his prompt arrival, interfere with the passing of the quarter, which would be the instant jeopardizing of the enemy's entire movement, with the loss of at least a yard, and possibly the loss of the ball. It is to the tackle, however, and not to the guard, that we look for the greatest amount of breaking through the line. He should be rigidly required to go through the line on the defense. Any tendency on his part to wait until he can see where the run is to be made should be instantly suppressed. When he is through the line he will be called upon to do one of two things, according as the play is directed toward his side of the line, or toward the opposite side. In the former case, his duty is to break up the interference, and if possible to secure the runner. In the latter case, his duty is to follow the runner, and bring him down from behind.

When not to go Through. Before beginning the explanation of the methods of breaking through, it may be well to point out the only case in which a green player, if he is a line man, should ever be coached not to break through, but to follow the play out behind his own line.

This one case is where he finds himself the third man from
the end of the line, and some one of the opponents is stationed outside of that end rush. In such a case as this, upon being notified by the end rush that an opponent has gone outside of his position (or whether notified or not, in case he perceives the situation himself), he should, after retaining his position long enough to repel any attempt to pierce the line at that point, instantly go out behind his own line, and beyond his own end rush, and prepare to act as the end rush on any second pass of the ball to the man located on the outside of that end.

He must understand that the location of an opponent outside of his own end is always a menace, and, being the third man in the line, when any opponent has been placed beyond the limit of the end rush, responsibility for checking a play around that end devolves upon him. With this responsibility he is not freed, however, from a responsibility for his own position in the line; but with the placing of an opponent so far out from the centre, the probabilities strongly point to a double pass or a long pass, and the third man from the end of the line must be the man to get the runner, and not the end rush, whose duty it is to go straight for the first runner.

Discrimination between Players. With this single exception there is never a time when an inexperienced line man should be permitted to run back of his own line when acting on the defensive. It may be permitted sometimes to a veteran who thoroughly understands the game, and in whom this method of checking the advance of the opponents is not a careless tendency into which he has fallen through error. There are times in every game when a guard can most advantageously enter the defense by running back of his own line; but never should a guard be permitted to do this until he has demonstrated his ability to be trusted to act upon his own judgment, and to know instinctively when such times arrive.

Keep the Ball in Sight. From this slight digression we may now return to the subject proper, and discuss the different methods of breaking through the line. There are a variety of tactics which may be employed in breaking through. That one is always best which will work the quickest, and at the same time make it possible not to lose sight
of the movement of the ball or the runner. It is of much less advantage to be through the line, if in going through the player has lost sight of the movement or passing of the ball, and is, for the instant, uncertain which opponent is the runner. That instant's hesitation required to locate the ball is fatal for the success of his operations, for the situation changes so quickly that it is not safe to lose sight of the ball for a second.

Two Foundation Principles. The first rule, then, is to watch the ball, and go through the line with the ball. The second rule is to keep yourself entirely free from the man opposite to you when going through, and prevent at all hazards any attempt on his part to hold or detain you. These two maxims are always to be borne in mind when attempting to break through the opponents' line.

Best Position for the Body. The best position for breaking through is to keep about arm's length from your opponent. Make no movements unless they are made with some distinct intention. Remember that any motion on your part in any direction will naturally produce a similar motion on the part of your opponent; keep this thought in mind, and take advantage of it at every opportunity.

Importance of Quickness. In enumerating the methods of breaking through, let us first say that quickness is necessary for all of them. The position of the feet and the general inclination of the body should be the same as in blocking; but much more than in the case of blocking should the player be at all times "on the edge." Watch the ball; try to detect, by any slightest indication, when and where it is going; break through with it if possible, and not a second later.

Attention to an Opponent. It is a safe rule to lay down that you can afford to almost ignore the man in front of you. With a little practice you can while watching the ball and never for a moment taking your eyes off it still see your opponent out of the corner of your eye. In other words, it is easily possible to bring your opponent and the ball both into the field of your vision at the same time. We have already said that you should keep at about arm's dis-
tance from your opponent, but if possible this arm's distance should be in his territory, and not in yours. Finally, go through with the arms well extended, so that they may be powerfully employed, to the end that you may not be bowled over by an interferer ; and lastly, go through, circling on as small an are as possible, to the end that your own line shall not be opened up too much.

Ten Methods of Breaking Through. (a) Strike your opponent on one side, as if making a feint to pass on that side, and dart quickly through on the other.
(b) Play for the outside arm of your opponent. You can sometimes catch this arm by a spring to one side. Your opponent, in the very attempt to free himself, may pull you through.
(c) Spring into your opponent with your arms extended, striking his chest a blow with both hands. The blow should be hard enough to start him back off his pins, or unsteady him, and you can then pass him on either side.
(d) The last method assumes that your opponent shall expose his chest. If he plays too low for, this, see if it is not possible to take him by the head and pull him to one side or the other.
(e) Play very low yourself, with the body swung lightly backward, so that one hip is nearer the opponent than the other; let the arms be extended, and the hands opened out and together, nearly reaching the ground. The instant the ball is in play, with a sweeping upward stroke of the extended arms let your hands meet your opponent at about the height of his head. The force of the upward sweep will make the stroke strong enough to unsteady him, and perhaps make it possible for you to dart through.
(f) Catch your opponent by the shoulders and twist him around, taking care not to retain your hold upon him for more than an instant.
(g) Strike your opponent on the lower arm with both of your arms, imitating the swing of a sabre.
(h) With both hands and extended arms strike your opponent on either shoulder. That shoulder will either give way or push forward towards you. If it gives way, its
righting power is instantly weakened, and you have the narrow side of his body opposing you, instead of the broad side. If, on the contrary, it advances to you, you wiil find that he has exposed his outer arm.
(i) Spring to one side, and with a sharp blow strike your opponent's arm down, and get through in that way.
(j) Decide which way you wish to go, then make any movement which will cause your opponent to move in the opposite direction to the one you have already decided upon. Let the feint be made the instant the ball goes, and your dodge will usually be successful.

Comments upon Them. We have given ten different methods of breaking through. All combined, however, they are not as valuable as is the method of studying the man in front of you, noting his faults, and adapting your breaking through in such a way as to take advantage of them.

Vary your methods continuclly. Work out for yourself original methods of breaking through, and have a good number of them, for all occasions and different opponents. Above all, watch the ball, and never take your eyes off it for a moment.

Dangers of Scrapping when on the Defense. If your opponent takes trifling liberties with you, such as slapping your face, or undertaking to "play horse" with you in any way, remember that these digressions are merely made with a view to induce you to take your eyes off the ball and give your attention to him. Let all such actions merely determine you to a closer watch upon the ball. Your opportunity for repaying such attentions - if, indeed, they ever need to be repaid - will come when your positions are reversed. But make up your mind early in the season that no shouldering, scrapping, or horse-play of your opponent shall ever induce you to ignore or relax that keen attention upon the ball which is absolutely indispensable to the success of defensive work.

Breaking Through on a Kick. The time when the opponents are about to kick is one of those critical moments when, by a single master stroke, the game may be won or lost. It is of the utmost importance that the kick should be
blocked, or the kicker forced to have it down at the spot where he is standing. One such successful check will discourage your opponents more than a little, and the loss of the ground will be almost doubled in value by the loss of heart and spirit through the recognition of their own weakness at this vital stage.

For such occasions, therefore, you should reserve your very best efforts. If you have detected a certain weakness in your opponent which will permit you to break through him with comparative ease, hold it in reserve for the moment when the full-back retires for a kick. To break through at such a time is worth any three successful attempts in ordinary scrimmage plays. Apply your power quick and hard; summon all your strength for the crucial effort, and reach the kicker in the shortest possible space of time, springing high in the air, with uplifted arms, the moment you see that you arrive too late, and the kick is about to be effected. It is often possible, by thus leaping in the air, to intercept the ball, and do even greater injury to the opponents than if the kicker had been reached before he had the chance to get in his kick. For the blocked ball will probably rebound beyond the kicker, and your own side, charging forward, may easily gain possession of it and carry it down the field for a touch-down.

Formations which it is Unsafe to Break Through. In the old days, when heavy mass wedges were sometimes formed at a particular point in the line, the wisdom of breaking through was restricted, so far as the player was concerned at whose position the apex of the wedge was pointed. It was manifestly absurd to attempt to counteract by an onward plunge the combined force of the opposing mass. The player was, accordingly, coached to get as low as possible, even going down on his knees upon the ground, and to dive headlong between the feet of the oncoming players, and cause them to fall over his extended body. This was called "piling up the wedge;" and although it required a fearless player to make such an attack, it was one of the most common sights on the football field.

Of late years the use of such a heavy wedge has been
effectually prevented by legislation, but the rules are still sufficiently elastic to make it possible for the formation of a body of men near a point in the line in such a manner that the attack may easily resolve itself into a solid wedge of a nature which it would be unwise to attempt to stop by permitting the player to go through the line in the ordinary way. It would be well for the player to study this point, and watch for every appearance of such a formation. If the indications are strong for a mass play at his point in the line, his cue will be to get lower, and at all hazards prevent his opponent from lifting him up as a preliminary to pushing him back. The instant the ball is snapped, the play will resolve itself sufficiently for him to ascertain whether his premises were correct. Should it prove to be a wedge or mass attack at his position, let him throw himself on the ground directly in front of it, and inclose in his outstretched arms all the feet and legs that he can seize; let him be especially careful, however, not to throw himself on the ground too soon, as, in that case, the wedge may easily avoid or step over him. Above all, he must get very low to the ground, or he will surely be lifted up and carried along with the first onslaught of the impending mass.

Conclusion. It is impossible to close this chapter without emphasizing once more the vital importance of aggressiveness in this feature of defensive play. No more disheartening criticism can be made upon a team than to call attention to the fact that they invariably make their tackles after the opponents have reached and pierced the line. A courageous and aggressive policy of breaking through is one of the most hopeful indications in a team. It is the more difficult to inculcate this style of play, because the excuse is always ready that the play may be coming at the exact point in the line at which the player is standing. There is, of course, in all such cases, a double responsibility, - the responsibility of protecting his own hole, and of breaking through and meeting the runner.

But while these are two separate responsibilities, they can never be separated in their consideration. They really belong together. Each one is the true accompaniment of the
other. Let the player never hesitate or hold back from any notion that the play may be coming at his place in the line. Rather let him be encouraged to go through " on the jump," with his eyes wide open, with attention never for a moment distracted from the ball, and with his arms sufficiently extended to enable him to meet and resist an oncoming interference. By such tactics he may at times overrun his man; but this is a hopeful fault, compared with the weakness or laxity which holds him back and permits him to meet the runner at the line rather than tackle him in his own territory.

## CHAPTER VII

## OPENING HOLES IN THE LINE

Interference and Shepherding. American Intercollegiate football has a monopoly of the interference principle as applied to the breaking of a rush-line. In Australian football there is such a thing as assisting the runner, but this "shepherding," as it is called, is in no sense like our methods, and it is performed almost entirely in the open. In fact, in the Australian game, as soon as a mass of players get together the referee immediately blows his whistle, and the ball is put down.

Our interference is the product of the growth of many years. With our original adoption of the Rugby Union Laws we took over the principle of "on" and "off" side, and for several years lived fairly close to the traditions.

Heeling Out. The first step of variation from these traditions we took in the heeling out of the scrimmage. In this we are by no means alone, for the Canadians have also adopted heeling out, and it is the only natural outcome and relief from the monotony of the old tight scrimmage, with its stupid pushing. But with the heeling out was involved the question of the rights of the rush-line after the ball had been heeled back. Theoretically, every one of the side which had heeled back the ball was " off-side," for he was in a scrimmage, and had placed himself, or rather been placed, between the ball and his opponents' goal. There was no escape from the conclusion that he was infringing the rule.

But this was also true in almost any scrimmage, even if played in tighter fashion, for an absolute line drawn through the ball could hardly fail to cut off men here and there during the pushing. Besides, it was impossible in the tight scrimmage to be sure where the ball was at any moment,
and frequently, as it popped out, the men were still pushing, so that, on the whole, it did not seem that the infringement would be much more heinous in the case of heeling out than in the older tight scrimmage.

The Development of the Use of the Arm by Forwards. The men in the line could not, of course, vanish into thin air the moment the ball was sent behind them, but at first they did the next most appropriate thing. They stood still where they were, or tried to run down the field in case they expected a kick. But it was not long before they found how serviceable an occasional extended arm was in cutting off an opponent who was going through to tackle the runner. From this it became the custom for the rushers to extend their arms as far as they could when lined up for the scrimmage, and thus give all the protection possible to their runner.

It was, however, traditionally improper to bend the arm at all in order to hold the opponent. Strange as it may seem, this tradition was lived up to for several seasons with a fair measure of propriety, but at last the temptation became too great, as the end to be secured seemed more important, and there came a year when our rush-lines reached out and held their opponents whenever the opportunity offered. This would naturally, unless corrected, have speedily put an end to the sport, for there could be no satisfactory tackling under such license.

Legislation against Holding. The players were themselves quick to see this, and at once began to consider legislation directed towards the abuse of holding. Two or three informal meetings between players of prominence at the universities finally led to a formal meeting and a very excited debate upon the matter. The result was, however, satisfactory. The convention took the bull by the horns, and enacted that the forwards of the side which had the ball should not use their hands or arms to block the opponents.

This was the first actual recognition of the distinction made between the side having the ball and the side trying to get through, and it was eminently proper that if we were to drift away from the strict "on" and "off" principles of

Rugby Union, we should have some idea where we were eventually to arrive, and, until this distinction was made, the future of the sport looked problematical.

Saving the Game. The adoption of the five-yard advance rule had already saved the sport once from utter extinction when the block game threatened it so seriously, and now in another emergency the rule makers had found a satisfactory solution of a hard problem.

It was in this way that the making of holes in the line came to be a recognized part of American Intercollegiate football, and any one becoming a student of the game should bear in mind the origin of this part of the play, as it accounts for and reconciles many apparently arbitrary distinctions. The principle that the men between the ball and their opponents' goal have lost their right of way is the one that explains the underlying thought of the laws. Butwe do not hold, as was indicated and foreshadowed when we recognized interference, that the loss of the right of way means as much as the Englishman takes it to mean. He would view our interference as atrocious off-side play, and quite properly so under his rules. But we, after making it legitimate to obstruct an opponent so long as the hands and arms were not made use of in the act, have gone on developing our plays along that line until recent momentum and mass plays have made it necessary to call a halt.

This brief history shows how we have arrived at "opening holes in the line," and also how far such breaking a path for the runner is recognized as legitimate.

The Hole should fit the Play. The cardinal point for the men making a hole in the line to bear in mind is, "What is the object of the hole?" A hole may be opened merely to deceptively draw the quarter and a half-back over to that side of the line. Such a hole should be opened early, and as widely and with as much demonstration of force as possible. The men who, like the quarter and half, are behind the line are seldom able to closely follow the course of the ball, and they depend more upon the appearance of the line to tell where the attack is being made than upon any ability to actually see the man with the ball. Here demonstrations
like that mentioned above are often wonderfully effective in drawing these protecting and defensive players over to the wrong side of the line.

Then, too, a hole may be opened for the purpose of distracting the attention of the opponents from a projected kick. Such a hole should have plenty of openers about it, and in this latter case it is also practicable to make it large and long, because the men engaged in making it are not needed later in any interference, as is sometimes the case in a criss-cross run or double pass.

Opening for a Plunge, and Opening for Long Interference. Coming now to legitimate openings, there are different varieties of openings necessary for different runs. The opening for a plunge through the line on a fake kick, where the half dashes through on his own side of the line, should be not much more than merely keeping the opponents in their tracks and preventing their falling or throwing themselves down across the opening. It is a very small hole that is wanted, and that only for an instant of time.

Farthest removed from that style of opening is that required for a "round the end" run (that is, practically, between the end and tackle), with the swinging interference that such a run entails. This opening is usually effected by the end and tackle boxing in the tackle while a part of the interference forces the end out. "The opening must be a wide one, for anything less is likely to be choked up before the runner can get by.

Time of the Opening. It is this kind of an opening that requires long blocking, for the runner must follow his interference, and should not be forced to cut loose from it too early in the usually vain' attempt to go through alone. How early such an opening should be made depends upon the starting speed of the runner and his interference, but it is safe to say that the later the real opening comes, so long as it comes before the main interferers reach the turn, the better; for it then enables the men to hem in the rush-line half, whereas, if the opening be made early, he will extricate himself in time to smash the interference before it gets well into the line.

What Happens when a Hole is Made at the Wrong Time. Interference met behind the line almost invariably loses half its dash through lack of confidence, and goes back against the runner, taking the pluck out of him as well. On the other hand, if the interferers once fairly reach the opening, they are confident as well as strong, and the feeling that they have already partly gained their end often enables them to carry the runner well past the difficult spot. The runner himself seldom gets on his real swing and dash until he actually feels that he has reached the striking point - then he has every muscle tense and he makes his supreme effort. For all these reasons, therefore, the opening should be rather a trifle late than too soon.

Opening for Tackle Run. An opening for a tackle coming around should be of a different character from that made for a running back. The inside man around whom he is to circle should crowd his opponent back as well as to the inside, while the man outside his opening may, if he be clever, even let his opponent through after a momentary blocking, provided he make him go on the outside and give him a little push onward with the shoulder as he goes by. The same is also true of the opening for a guard when performing a similar run.

Opening for Mass Play. Openings for mass plays striking the line at guard or centre are wholly different again from any thus mentioned. These openings are not made until the push part of the play has practically lost its force. As long as the mass is moving forward, it is utterly bad football to make any opening. Progress is all that is wanted, and the line men in front of the mass should stick together shoulder to shoulder until they find themselves brought almost to a standstill; then, with a final effort, they tear themselves apart, carrying a break into the opposing wall through which the runner, with the added push he is receiving from behind and from the sides, slips, and, should he come clear, steps out for himself.

An opening made before the mass has done its work almost invariably means an alley way for the opponents to reach the runner and stop him before he has gained a foot, and sometimes with actual loss of ground.

Don't Open the Door for the Enemy to Come In. Don't open the door for the enemy to come in, but for the sortie to go out. And this leads us to another maxim that the line men should always bear in mind. In all mass or push plays the door must always open outwards. In runs by the tackle and guard, the door may open in, but the hinges must be on the outside. A door opens outward when the runner's men who line the opening are in opponents' territory ; it opens inward when the opponents have broken through the line, but are pocketed or blocked off to either side. When a team has thoroughly possessed itself of the idea that there must be no double hinge in these doors, that under no circumstances must the door slam back into the faces of the bunch of runners, then that team has reached a time of high development - the time when its greatest game should be played.

To carry out the idea of the door in the line, let us take up an ordinary push play between guard and centre. Here imagine that the door is a double one, its two sides formed by the guard and centre. The play starts, the pushing mass crowding directly upon these two men, with the runner in a straight line behind the crack that will eventually become an opening between these two line men. Everything moves ahead a step or two, then, as progress becomes checked, the guard swings himself forward and out toward the tackle, the centre swings himself forward and out toward his other guard, and the mass of tightly packed players with the runner, and possibly the quarter at its peak, goes through the opening doors as they sweep aside the attacking party.

How the Door Opens for a Tackle Run. Next, take the run by a tackle between the tackle and end. At the instant that the ball is put in play, the tackle on the side toward which the run is coming, manages to get squarely in front of his opponent. The chances are that that opponent does not desire to go inside, but has been instructed to go outside his man. This the tackle will have been able to discover with a fair measure of certainty some time earlier in the game. If he is sure of this he can take a decided step outward just as the ball is put in play, protecting the inside course slightly by keeping his leg and thigh still in front of
his man. At the same moment the half jumps boldly forward, and to the outside of the tackle. On some teams the end also closes in quickly. The far half and the full-back make straight for the space well out, but still inside the opposing end.

The door that is now opening may be imagined again as a double door, but it does not swing as in the push play. On the contrary, the outside half of it is opening in; that is, the man farthest from the runner reaches the line first, and the man just behind him is the inside man, and between them they should pin the end, who at the last moment sees that he must come in to reach the runner. The inside half of the door, formed by the tackle, half, and end, is opening out, the end being the farthest toward the opponents' goal, the half next, and the tackle at the hinge. This half of the door should pin behind it the opposing tackle and rush-line half as the runner himself goes through, aiming in a diagonal line for the edge of the field, and only turning in after he passes his own end.

We speak of this door opening in, with the hinge on the outside, because, as the tackle comes, the inner half of the door formed by the tackle, half, and end is much less movable and performs its duty satisfactorily if it merely holds its own, while the outer half, having only the end against it, appears to him as the real door, and toward that he runs, almost rubbing his shoulder along it as he goes through. It must open in, of necessity, since the end has probably so far advanced that he will be met inside the runner's territory.

Classification of Openings under this Head. Almost all openings may be classed under one or the other of these two heads. Straight runs into the line are after the fashion of push plays, except that the door opens sharply, and before the runner quite reaches it. "Around the end" runs are usually made inside the end, and the door is like that for the run of a tackle or guard.

Detail of Individual Work in Making Openings. As for the individual work in opening holes, there is a chance for a great variety of detail. A player may not use his hands or arms, but he can use his shoulders, his head, his
neck, his hips, and his thighs, and it is only necessary for a skeptic to line up against a first-class guard or tackle to see how thoroughly an accomplished man can perform his work, and still make no use of hands or arms. Some men will fairly wind themselves about an opponent like a huge snake, while others will obtrude such a variety of obstacles in the shape of shoulders and knees as to make an insurmountable barrier at the proper moment.

The usual fault and the tendency to be combated in most line men is that of opening the holes too early and getting their weight too high at the outset. The player should try to straighten up as he opens the hole so as to prevent the opponent from reaching or lunging over him, and getting at the runner; to this end he should begin at a low point, and stiffen up rather than settle down.

After the Runner has Gone Through. As soon as the opening has let the runner through, those who have made it should abandon it, and push from behind forward into the mass, or follow the runner if he has gone through singly.

## CHAPTER VIII

## INTERFERING FOR THE RUNNER

English and American Right of Way. In the chapter upon opening holes in the line we have already given something of the history of the growth of interference in the American game. In that section will be found an explanation of the "right of way," as observed in the American traditions. In English Rugby there is no such thing as interfering for the runner, and such an act would meet with the strongest disapproval of any one grounded in British beliefs as to off-side play.

Aid to the Runner. In order to appreciate the American methods one must begin with the premise now admitted in all our rulings, that it is perfectly proper, under certain restrictions, for a comrade to aid one of his side to get through the line, and to evade the attempts of the would-be tacklers. This assistance is usually rendered by the interposition of his body between the runner and his opponent or opponents. This assistance, as given by the line men in opening holes through which the runner may quickly pass, has already been dwelt upon at length. But it is not in the line that the art of interference reaches its perfection. It is rather in the long swinging runs out toward the end, or in the more closely formed mass plays hurled against a yielding spot in the opponents' front, that one sees interference in its highest development.

Theoretical Perfection. Its greatest possibilities can be best conceived when one realizes that, after the ball has been placed in the runner's hands, there are ten of his comrades who have no part to play save to assist him in making as long a run as possible; also, that there are but eleven opponents to stop him, one at least of whom (the full-back)
is deterred by caution from entering into the attempt to catch the runner until that individual shall at least have come past the line of forwards, and started for the goal. And so, in an ideally perfect interference, each man of the runner's side should take a man. This would leave only the full-back to stop the runner, and it is notorious that not the best tackler in the world can stop a thoroughly expert runner and dodger, save by overtaking him from behind. So, in a perfectly organized interference, touch-downs should be the ordinary results of possession of the ball.

Man-to-Man Interference vs. Line Interference. No such perfection has been reached, and yet, with the development of new and original plays, we are advancing toward the attainment of a degree of skill in this line that makes the study of defense indeed a hard one. Before legislation was passed rendering it obligatory upon a side to actually kick the ball into the opponents' territory at kick-off, - thus practically surrendering possession of it, - it was by no means out of the range of possibility to steadily advance the ball by successive methods of interference from the middle of the field to a touch-down. At times this was accomplished by a succession of short advances, again by two or three long runs out toward the end. Many have been the plays based upon the supposition that the attainment of a man-to-man interference mentioned at the outset of this chapter was a practical possibility. Probably there has never been a coach who has not been at times carried away with the belief that such an interference can be arranged. It is not for us to say that it cannot. But the evidence of the games of the past is against it. Occasional plays partaking of this method may be used, and used to advantage, but there is too large an element of chance about it to make it a good base plan for general development of successful interference. There are better foundations to be laid in other theories, and the best of these theories is that one which depends upon the principle of dividing the opponents.

This principle can best be illustrated by supposing that a line of men is running across the field in a diagonal direction between the opponents and the man with the ball. If these
men could preserve just the right distance between each other, it is easy to see that it would be almost impossible for the opponent to reach the rumner. While there are many off-shoots of the theory of individual man-for-man interference, and while it is undeniably true that there are a number of minor plays that can and should be executed under an interference based upon this principle, the theory of line interference offers so much more possibility of practical field development that we set it down unquestionably as the one to be adopted as a basis for the general expansion of all plays.

Method of Line Interference. The first step in studying this method, in order to arrive at a thorough understanding of it and its application, is to consider the interference line as cutting off a certain section of the opponents' team from participation in the play. This is wholly different from the man-to-man cutting off, and it is not directed at certain individuals wherever they stand, but at a certain section of the field, and it affects, therefore, the men who chance to be in that section. If they stay out of that section, they will not be disturbed until the second movement of the play - the cutting off of another section of the field - commences.

Example of Line Interference. By way of illustration, let us take a simple run by a full-back through a space lying between the positions occupied by the opposing tackle and end. We arrange that a line of two or three men shall run diagonally, so that, just as the runner reaches the line, they may interpose between the path of that runner and the main body of the opponents. On the other side of him we may arrange for two or three other men to interpose between his pathway and the end rusher of the opposing line. That puts the case with the greatest degree of simplicity possible, and yet shows the entire theory of the first step in forming effective interference.

Second Step. The next step is after the same order. We have a runner moving between two converging lines of men. At a certain point this protection must cease because the runner and his interference must move with rapidity, or
else the opponents, with their additional weight, will push through or crowd the interference against the runner. If both the interference and the runner are moving at high speed, the runner will eventually outstrip his interference. In fact, that is what he is expected to do in line interference. The passage through which he eventually emerges is called the outlet. If he goes clear to the end of the alley formed by his two lines of interferers, the play is simple, and, though effective, there is nothing in it to deceive the opponents, and the chances are that, though the runner will gain such distance as his interference is able to cut off for him, he will be met at the outlet, and there his run will come to an end.

Final Outcome. But now let us imagine the lines of interference considerably prolonged, and that when the runner has gone half way down the alley the interference is turned at almost a right angle, and the opening thus altered to another point. Such a move would deceive the opponents, and might add another chance of the runner's emerging at an unexpected point, and thus adding a long run. It is hardly practicable to actually turn the entire line of interference sharply, but it is possible to effect the same result by sending the runner through the side of it, and by making use of an extra man or men on the outside, practically forming a new interference as the old breaks up, and aiming that new interference in another direction.

Funnel-Shaped Alleys. In all this there must be borne in mind the advisability of having the alleys funnel-shaped, that is, in both primary and secondary interference, the end at which the runner is expected to enter the alley should be broad and well-opened, narrowing down from that to a small point at which he eventually emerges. This not only enables him to run straight for the most unprotected point of his opponents' line, but also makes it more difficult for more than one of his opponents to follow him from behind and thus prevent his escape if he be slowed up.

Combination of Primary and Secondary with Man-toMan Interference. The most effective, but the most complicated in appearance of all interference, is that which, following out these two moves (that is, first a primary inter-
ference, which resolves itself into a secondary line), terminates in an outlet at which the runner is joined by a single interferer who has reached that point in time to precede him on down the field. Of course, with this may be combined a man-to-man interference performed by the one or two who could not get into the primary or secondary interference, against the man or men most likely to reach the final outlet or to get in the later path of the rumner after he emerges. The possible expansion of interference carried on along these lines is almost unlimited.

Walking Through the Interference. To come now to the detail of it. With a team of veterans fairly proficient in the general practice of interference, new plays may sometimes be added without going through the drudgery of slow and careful performance. Unfortunately, however, for the work of the coach, there is seldom a team composed of all veterans, and so it is almost invariably necessary to walk through the plays and take up the interference gradually, accustoming each man to his position and his duty, and accommodating the speed little by little to the exigencies of the performers. In walking through plays especial attention should be paid to the precise point at which the runner receives the ball, and the exact position of each player at that moment. It will be found that that is the moment of time about and by which to regulate the play.

Three Points of Measurement. There are three positions at which a measurement can be taken to define the relative places of the men who act as interferers with the runner. The first is when the ball is put in play; the second, when the runner receives it; and the third, when the runner makes his break, - that is, attempts to go through the outlet. At the first of these three periods of the play there are three points for consideration: the protection of the quarter during his pass, the deception of the opponents regarding the direction, and the quick starting of the entire body of men used in the play. At the second period when the runner receives the ball - there are two principal considerations : first, to render its reception secure, and with that is involved the question as to which side of the quarter
or the half back certain interferers should pass; and, secondly, to protect the runner for a moment from behind in case a man shall have broken through too rapidly, and with this goes, naturally, protection in case of a poor pass or a fumble by the runner when attempting to take the ball. At the third period - that is, when the runner makes his break on his own account - there are two great considerations to be observed: first, how to make his opening as safe from obstruction by either friend or enemy as possible; and, secondly, how to push or drag him along in case he fails to come free.

Addition of Double Passes. Having reached this stage in the analysis of the method of interference, we have placed in the coach's hands the material from which to build up all the necessary walls about his runner. Every play may be, and should be, studied by this process.

We now come to the still more complicated problem offered by the addition of double or even triple passes. By this term "double pass" we here mean either criss-cross or double pass, for it is general among players to distinguish these two by using the term "double pass" with the meaning that the ball be passed on in the same general direction; while by "criss-cross" is meant a pass whereby the ball is then carried by the second runner in the opposite direction, across the field. We have already noted that it is not practicable to alter suddenly the direction of a moving mass of men, and that to alter the course of interference to good effect requires the addition of one or more interferers not involved in the first line. But in the fact that the ball may be passed, and thus the position of the man with the ball be suddenly altered, we have an opportunity of accomplishing almost an equivalent to a sudden change in the direction of interference. "And herein, as will be shown by some of the diagrams of plays in this book, we have possibilities thus far only partially appreciated and little understood. An ordinary double pass or a criss-cross is crude when compared with the same play elaborated by secondary interference, the primary being used not only to protect the first runner, but also to thoroughly involve the enemy at a point
which suddenly becomes an unassailed point; while, at the same time, the whole force of perfected interference is sent at the spot which is left comparatively unprotected. Add to this the simplicity of using the same play with a variety of outlets, so that the very energy of the opponents will prove their own undoing, and one can gather something of the importance of these new movements.

Final Perfection of Interference, with Double Pass and Kick. Still beyond this may be placed the hitherto utterly neglected feature of play involved in altering by a kick all the momentarily existing conditions, and we come to a stage of perfected assault (consisting of a combination of primary and secondary interference rendered still more menacing by a double pass, and with a finally altered situation due to the placing of the ball by means of a kick far in advance of the actual runner) that may well give those on the other side, in whose charge lies the problem of defense, some bad hours of consideration. When a runner breaks with, let us say, but three men to pass, and deliberately punts the ball over the head of the full-back, after approaching as near as he can with safety, he and his companions who are going down the field prepared for this final manœuvre will, in many cases, have a far better chance than the opponents of regaining possession of the ball, and with that possession the coveted touch-down.

This chapter, however, is not intended to deal with specific plays, but rather to lead up to the development of such theories of interference as shall make captains and coaches able to plan out, not a few plays that are already public property, but absolutely new plays which emanate from their own study, and which depend for success merely upon their perfected execution.

## CHAPTER IX

## KICKING

Decline of Kicking and its Present Return to Importance. The history of American football would show, if followed closely, the early importance and the gradually increasing attention devoted to kicking, followed by a period in which the running game so eclipsed that branch of the sport and so perverted the minds of captains and players, that the art of punting was almost lost, followed again in recent years by the steady rise once more into its proper place of what is known as the kicking game. To-day no team is a really strong one that has not a thorough knowledge and practical ability to play a game that combines both running and kicking in their highest development.

Kicking is as essential to the success of a football team as batting is to a baseball nine. But, fortunately, the problem of development is greatly simplified in the case of the former by the fact that a football team can almost always permit one of their number to do all the kicking, while a ball nine must let each man take his turn at the bat.

Laxity in Educating a Team. This seeming advantage brings with it, however, a dangerous laxity in educating a team; for, in order to play a game to its proper limit, the knowledge of the kicking principles should be instilled into the whole eleven, and this is usually ignored except in the case of the ends and the full-back. Even here there is often a deal of inexcusable ignorance. For instance, many a fullback will, when his line has held well and his opponents are slow in getting through, exert himself to kick quickly and hurry his kick, when he ought to know that for every second he can hold back his drive, and still be sure of getting it in, his ends are making yards, and his opposing
backs getting less chance to handle the ball. There is nothing so disconcerting to the opponents as this unexpected change in time, and a full-back who can not only kick quickly when necessary, but who has also the ability to hold his kick safely and then let it go with a hard, clean, wellplaced drive, will so save his ends and rattle the opposing backs that he will add twenty-five, or even fifty, per cent. to his team's chances of success.

Blocking for a Kick. The forwards often lose sight of this point, and the coaches encourage them to lose sight of it by indiscriminate urging to "block first a second, and then go down the field." The best coaches do not want a slow, heavy centre and "ice wagon" guards shaking themselves to pieces and jarring their strength out, in hurrying to try to play the game of an end. If a team has a guard who is fast on his feet, by all means give him a chance to go down under a kick, and let the quarter block his man for him ; but if a tackle, even, is too ponderous to be down quickly, let him block long instead of making a futile attempt to follow the example of tackles "who beat the ends" down the field. The far side can go down and the near side block; even an end on the near side may block, if the game is properly played by the other side of the line, and the play is sufficiently practised; but this is a part of the kicking development that will be better understood as coaches realize its value.

Who shall do the Punting? To return to the fullback and his specialty of punting. Of course it is understood that in speaking of the full-back as the kicker of the team it is not meant that the man playing the middle position of the three backs is the only kicker on the team. The practice of lining up is proverbially slow, and as no actual restriction is placed upon the length of time that a centre may wait while his team takes up their positions, any man may be used to do the punting. In fact, on one very good team, that made a most enviable record, it was one of the tackles who did all the punting. True, the team was not first-class, because no team could be that was obliged always to indicate their intention of kicking, but the fact will serve to
show that certainly any one of the three backs may do the punting, and it is often by no means a mistake to mystify the opponents somewhat on this point.

How to Learn to Kick. As stated elsewhere in this book, it is supposed that by the time any man reaches the point of trying for a full-back position on a 'Varsity team, he has had a year or two of kicking practice. But in this chapter we propose to begin at the very beginning of the subject, in order that any man who has never hit a football with his foot may learn to kick by a reasonable attention to instructions, - provided he possess ordinary capacity and has his muscular system under control. The first step in the instruction of a candidate for kicking, however, is to give him a ball and tell him to put it on the ground and then kick it around the field. He should do this for a considerable time, as often as twice a day for a week, before he undertakes a punt. The object of this is to let him find out where his foot is, before giving him a chance to hurt himself by kicking at the ball and missing it. The reason why many men fail absolutely in kicking is because they are not natural kickers ; they have grown up with no experience of this kind, and at the outset are allowed to try punting without preliminary practice of locating the foot and ball. The result is that all the man's awkwardness in his first attempts becomes crystallized into hopelessly bad form, and, while by sheer brute force and persistency he may in time be able to kick thirty-five or forty yards, he is erratic in performance, unsteady in aim, and, if he be called upon in a game, a source of demoralizing anxiety to the rest of the team.

After the First Week. Having passed a week in chasing the ball about, and kicking it, the beginner may for the first time take the leather egg up into his hands. Now let him for a few days stand out from the goal posts, or a similar mark, a distance of not more than fifteen yards, and punt at the mark, never kicking the ball hard, but trying to hit it squarely with the instep upon the point of the ball. The ball may be dropped with both hands, and with one hand, alternately, in order that later the kicker may adopt either style. But the chief point to be observed is to
acquire the ability to hit the ball with the instep of the foot squarely on its point, and in the line of its axis. The kicker must not leave this simple easy practice until he can thus strike the ball every time, and that, too, with accuracy of aim.

Kicking on the Run. Then he may begin a new exercise. Up to this point he has kicked the ball while standing still. Now he may take a run and kick it while on the run, tossing it a little to the side and not directly in front of him. At first he will almost stop or else hit the ball inaccurately, but soon he will find that his eye and foot understand each other, and he can reach the ball and hit it squarely, although he may have thrown it a little too far out or a little too near.

Increasing Distance and Improving Direction. By a few weeks' careful preparation along these lines we have a man broken in to an easy assurance of aim in swinging his foot before he begins to make those hard and violent efforts to drive the ball that will result in fixing permanently any clumsy motions and bad faults. He has not yet tried to kick over fifteen or twenty yards, but he may now begin to increase the distance. With this extension, however, the coach should include practice to acquire a better idea of elevation. Placing the man at the twenty-yard line, let him punt first between the bar and the ground. That is, let the ball pass under the bar and strike the ground behind the goal line. Then let him send the ball over the bar but below the tops of the posts, and finally let him punt the ball well up in the air, making it fall as nearly on the goal bar as possible. After two days at the twenty-yard line, place him at the twenty-five-yard line for a similar series of kicks. Then, instead of placing him at the thirty-yard line, put him on the fifteen-yard line again, but half way out toward touch. Then let him take the twenty and twenty-five-yard lines at a similar distance out, and after that place him once more at fifteen, but on the extreme edge of the field. From this take him once more to twenty and twentyfive yards.

Accuracy and Trick Kicks. By this time the coach
will find that his punter, although he has never kicked any greater distance than from the junction of the twenty-fiveyard and touch line over the goal, is yet able to put the ball within these limits with tolerable accuracy, and, what is more, he does not make any slip kicks. It would not be a bad thing for any man who has the time before him to keep at this point during his entire first year of punting. Naturally the development from this stage into regular distance punting is perfectly simple, and needs no especial attention, but a man will do it all the better if he takes more time to it. Then there comes the higher stages of kicking skill, the drop-kick, the twister, the corkscrew, the sailing kick, and the shoot, as well as place kicking. The place-kick and drop-kick deserve especial paragraphs, but the others are merely tricks to be acquired by practice, and, while very serviceable at times, are never to be too greatly relied upon in close quarters or with a wet ball or slippery field.

Place Kicking and Goal Kicking. The gradual practice advocated for the beginner in punting can be advantageously followed up with drop kicking and place kicking. The time at which to begin these two is not until the player reaches the stage of comparative facility in punting from any point along the twenty-yard line. Then he may begin place kicking and use it as a kind of relaxation from his punting. At the outset he should merely make a little nick in the ground with his heel, and by setting the point of the ball in this depression it can be placed securely at any angle desired. He should begin with the ball well "cocked up," that is, standing nearly on end, with the farther end tipping slightly toward the goal. In kicking he should take a couple of steps, and coming squarely upon the standing foot (that is, the one upon which he stands in delivering the kick, the left, in the case of a right-footed kicker, the right in the case of a left-footed kicker), give an easy swing with the other leg, meeting the ball with the toe a couple of inches from the ground, taking care that the ball and foot are in line with the centre of the goal. After some practice in this manner he may tilt the ball the other way, that is, toward him instead of toward the goal. Later, in his long-
distance kicking, he may place the ball almost level on the ground when a kick of half the length of the field is to be made. Hickok, of Yale, could easily kick the ball over half the length of the field from this position.

Close Kicks. The nearer the ball is to the goal, the more it should be "cocked up" for the kick, that it may go up into the air more rapidly from this angle. One of the most certain methods of goal kicking is to stand upon the left foot, with that foot by the side of the ball and almost even with it, then witl a simple swing of the other leg the ball is lifted over the goal. This kick is not available for distance kicking, but is a very certain method when used by a man who has practised it for converting touch-downs made behind the goal into goals.

It is safer not to have the same man do all kinds of place kicking for the team, although in developing the men practice in all lines is distinctly advisable. Let one or two men be taught this short kick, and if a touch-down be secured directly behind the goal, call upon the short kicker to convert it. On the other hand, if the touch-down be at the side, or if any place-kick of distance be indicated, the short kicker should give place to the man who is trained especially for the longer drive.

Holding the Ball. Thus far, we have said nothing about the man who holds the ball for a place-kick. Probably four out of five missed goals are missed by the lack of coördination between the man who holds the ball and the kicker, and three out of five are the fault of the placer. It is by no means an easy task to place the ball on the ground quickly and lightly and without any variation in its aim or its position. It must be done at the word of the kicker, and above all without apparent motion. The ball is held in the hands of the placer, or rather by his finger-tips, and within the smallest possible safe distance from the ground. The most approved method is to place the forefinger and second finger of the hand on the top of the ball at the upper part of the end of the lacing. The other hand holds the ball in the fingers the same distance from the middle point (but back toward the kicker) as the upper hand is from the middle.

That is, one hand is a little nearer the point of the ball than a median line, and the other hand a little nearer the butt or end that is to be placed on the ground than the median line.

The ball is then aimed under the direction of the kicker by such verbal instructions as "lacing away from you," " lacing toward you," " point away from you," " point toward you," "cock it up," "don't cock it up so much," and the like, until it points directly in the desired manner-allowance being made for the wind and the condition of the ball. Then the kicker says very quickly, "Steady," and follows it instantly with "down," as he takes his step, - or, in case of the short kick, he watches the ball as he says "down," and kicks instantly when he sees it placed, - and meeting it confidently with a straight foot he drives it over. The placer in putting the ball on the ground rests its point, and, withdrawing his under hand, steadies the ball with the fingers of the upper hand, never taking them off, but allowing the ball to be kicked out from under them.

Ball Affected by Weather Conditions. There are many variations of holding the ball, and some placers find changes from the above more convenient for their individual peculiarities. Place kicking should be especially practised in all conditions of wind and weather, in order that the kicker may acquire accuracy as well as confidence. He will discover that a wet and soggy ball must be cocked up more than a dry one - that a new ball should also be well pointed up as it travels low and fast, and the wind does not lift it as much as it does a ball that has grown round and old. He will also learn that it is best to do his practising with two different balls, - one practically new, and the other a ball that has been used through one day of practice. He should never waste his time upon a really old ball, as he will never be called upon in a game to kick such a ball. Should a touch-down be secured in the first five minutes, for instance, the ball is as new as when the referee blew his whistle, but a touch-down during the last five minutes gives him a ball that has altered in shape not a little, and which does not travel so sharply into the wind. The points to be noted, and which the kicker will be the better for learning, are that he
must establish a thorough sympathy with his placer, and that he should never become impatient or hurried in giving his instructions. Moreover, if he sees that the placer is nervous or shaky in his hands, he should stop and tell him to take the ball up and wait until he steadies down. There is no need of haste, as the time is taken out. The placer himself should also feel at liberty to stop and take a rest if he finds his hands becoming unsteady.

If ever there is a time when dependence must be placed upon calm, collected steadiness, it is when a touch-down is being converted into a goal, and the frequent failures to kick goals that we see every season are, many of them, inexcusable. One of the most common errors that is seen in place kicking is that of endeavoring to allow for the wind by the aim of either the foot or the ball alone. The ball is, for example, aimed well off toward the side from which the wind is coming, but the kicker kicks straight at the goal. This is the usual fault. Less common, but still not infrequently witnessed, is the mistake of aiming the ball at the goal and then kicking off toward the wind. The only way to kick a goal properly when allowing for a wind is to bear in mind that the foot must hit the ball in a line with the long axis; in other words, a line drawn from the heel of the kicker's foot straight through the middle of the sole of his shoe should, when continued, pass directly through the middle of the ball, so far as any side to side variation is concerned.

Another thing to be borne in mind, when kicking in a hard wind, is that there should be more force put into the kick. The harder the ball is driven, the less the wind will swing it, and a light kick will not only be swerved from its direction more easily, but will often, on account of meeting with that resistance, sail off and fall short of the goal. This, of course, applies to side winds as well as to head winds. When the wind is a following one, pains must be taken to cock the ball up well, especially on short kicks, for a new ball with a wind behind it goes low - unexpectedly low at times.

Punting Out. As to punting out to gain better position, it is not worth while to do this unless the tonch-down be well over on the side. A good place kicker can readily enough
convert all other touch-downs into goals without the interposition of the punter out. When the touch-down is unsatisfactory, however, either from its position near the edge or because the wind makes the kick a difficult one, the punt-out is demanded. If properly practised there never should be a failure in this part of the programme. The punter has every privilege allowed him, and has only to punt the ball with moderate accuracy and the catcher does the rest. For is short punt-out he may find it advisable to hold the ball with both hands by the ends and kick it on the side. This is, however, the only time when a ball should be kicked in this way. In fact, even here an expert punter will send the ball quite as accurately with the ordinary end kick. The rushers of the catcher's side should line up in front of him so as to protect him from the charge of the opponents, while his quarter and remaining back should take up positions by the side of and behind him in order to catch the ball if the kicker sends it wide.

Drop Kicking. To come to the drop-kick, that prettiest of all kicks, and the most fascinating to the man who once acquires skill in it, the kicker will find that beside it the place-kick, and especially the punt, become drudgery; and that is one reason why it is necessary to keep the backs at work on punting rather than drop kicking. Drop kicking is rarely employed. In the ordinary kicks of the game the full-back has no time for a drop-kick unless he stands back so far as to materially shorten the distance gained, and so lose the value of the kick. Thus drop-kicks are only employed when near enough to the opponents' goal to render scoring possible. The practice of drop kicking should, as stated above, not begin until a fair mastering of punting has been acquired. Then let the kicker try drop kicking.

Handling the Ball. To begin, the ball is held either in one or both hands, and it is well here, too, to practise at the start both methods. If the ball be held in one hand, let the point of the ball rest easily in that hand, which is made into a sort of cup for it. Let it be dropped by taking the hand gently but quickly out from under it, so that the ball falls without turning and strikes the ground in exactly the same
position in which it was resting on the extended hand. At the very instant it rises from the ground - in fact, just as its spring is coming - it is met with the toe of the foot, and the drop-kick is accomplished. In holding the ball with both hands, it is held by the sides with the point toward the ground. The ball may be dropped in any one of three ways, and yet be driven exactly the same by the foot. It may be dropped with the long axis vertical, or with the upper point of the ball inclined slightly toward the goal, or with that point inclined toward the kicker. It seems to make little difference in the matter of strength or accuracy of the kick, although it is true that there are fewer slip kicks made by those who incline the ball toward themselves.

Kicking as in a Game. In all kinds of punting and drop kicking much of the practice should consist of kicking after receiving the ball from the quarter, and while one or more men rush forward and endeavor to block the kick. As a boy cannot learn to swim without going into the water, so no man learns to kick properly, in a manner to be of service in the game, unless he kicks under the conditions that prevail during an actual match. We have too many men who can kick fifty yards when they have everything in their favor and no opponent, and altogether too few who can punt forty-five when an opposing line is coming through on them. Especially should attention be devoted to the side swing, for with it a full-back is almost always sure to get in his kick unless two men together get through on him, while with the ordinary straight ahead kick he cannot dodge the first man, if one gets through.

## CHAPTER X

## TEAM PLAY

Breadth of the Term. In discussion of team play, it has almost invariably been assumed that the maximum development of that characteristic of the game is attained when eleven men play together as a unit. Unfortunately for captain and coach, this assumption fails to cover the case adequately. Primarily, such attainment presupposes the presence of the same eleven men through many days and weeks of practice. This not the most lucky coach can ever hope for, or, if he hopes for it, he is doomed to disappointment, and by a succession of such disappointments he becomes wise enough to admit, at least to himself, that he must plan beyond the point laid down in the books. He must make twenty men play as a unit, or rather fit twenty or more men so that any eleven of them, selected by himself or by the hand of a stern Fate, may show signs of having acted in concert upon former occasions.

When Team Play Begins. To reach, then, the real bottom of team play, one must begin at the selection of the candidates at the very outset of the season. The usual formula recited by the uninitiate is that team play does not begin until late in the season. Strictly the "play" part does not. or at least it does not come into prominence or even evidence until then. But the coach who is responsible for it must take up that branch of the play when the crowd of motley candidates first appears upon the field in the early fall.

The reason for this is not a far-fetched one, but after a few seasons appears too real. It is that the positions vary greatly in their demand for material. To state the ideal numbers for each position is, perhaps, to set too arbitrary a requirement
before the coach, but it may serve as a pattern or guide which will aid him materially. There should be four centres, six guards, six tackles, eight ends, four quarters, and twelve backs, of whom six should be punters. 'That gives us the quota of forty men who represent a serviceable football squad. In the larger colleges and miversities the number is usually doubled during the first quarter of the season, and sometimes during more than half the season, but if team play is to be successful the time when the candidates reach forty should see them approximately thus divided.

Actual Numbers for Each Position. Perhaps the importance of this plan cannot be better brought out than by a brief illustration. Take, for instance, the statement that there should be eight ends in the early part of the season. Why more ends than tackles, and what has the actual number of candidates for any one position to do with team play? Aside from any question of the number likely to be injured during the season, which is more or less guesswork, there is a most solid and convincing argument to show that eight ends are required. Primarily, there are two wanted for the first, and two for the second eleven to fill up the regular numbers. The four extra men are made use of to teach the backs how to lick, or rather to keep them up to form in punting, and also to male the tackles properly perform their work.

The Ends. It is all simple enough when one considers what the faults are that backs and tackles surely pick up, and that hurt the team play most seriously. The back has been practising punting more or less during the late summer, and from the very fact that he is a candidate for the position, one can conclude that he is a fair kicker. The first days of practice come, and the ends are not, of course, in really firstclass condition, so that, naturally, after running down the field a few times under the punting of the back, they "go slow." The back sees this and does not kick so far, because he fears the opposing full will run the ball back behind interference, and make a good gain. Within a short time the full-back has actually reduced his kicking in point of distance to correspond to the inferior work of tired ends. To prevent this, we put in the first set of ends and tell them
that they must get down under the kick, if it takes all their wind out of them in five minutes, and just as soon as a man goes a bit slow we put in one of the fresh ends. With four of them we can keep constantly changing, and the back has to keep his kicking extended, and cannot use as an excuse for a short kick the fact that the ends did not get down under his former one.

Effect on Tackles. As to the way the same fault affects the tackles. With the work of getting down the field under kicks and general play, an end is kept busy enough so that, if tired, he begins to let the tackle do work out toward the end which spoils the tackle for his proper play. For instance, a tackle breaks through sharply, and the runner goes by him out toward the end, but not very wide ; that is, the runner swings in sharply after passing the tackle. A tired or lazy end, moving slowly, is caught by the interference, and the runner gets a good gain before being brought down by the half-back. This disgusts the tackle, as he knows that every one thinks it was his fault that the man got by, and after a few such plays - where really the tackle is doing exactly what he should, and the whole fault lies in the end being too slow, lazy, or tired - the tackle does not go through hard and fast, but moves out as he sees the interference going, and really becomes a second end instead of a tackle. Reasoning, then, upon this basis, we make the end play his position up to its limit every moment that he stays in the game, and as soon as he slows up we replace him with a fresh man. In this way we establish a strict standard of work for the full-back and tackle to live up to, instead of allowing them to deteriorate or take on bad habits on account of the weakness early in the season of that important player, the end.

This particular position, and its effects upon two at least of the other positions, has been discussed at length in order that a clear idea might be gained of the points involved at the very outset, in bringing about eventual team play of a high grade. It is unnecessary to do more than note briefly in passing the reason for the other numbers given above.

Tackles and Guards. While the tackles must be fresh
and active always, the distances they travel upon kicks are shortened by the necessity of temporarily blocking their men, so that their wind is not quite so fiercely taxed as is an end's. Still more, they are in this respect secondary men at the best, and the fact that a tackle failed to get down quickly under a kick would never lead to a full-back's shortening his distance or waiting. The same may be said of a guard, except that the increased opportunity of quietly loafing that is extended to men cramped up in the centre makes it imperative that the competition for the places should be very keen. Were it not for this, four guards would be enough. The centre is in proportion better supplied with four men than the guards or tackles with six, for it takes but one centre to two guards or two tackles to form a team. But the centre man must learn to get out into the play, and that, for a heary man, takes wind and endurance, and when the heary man gets tired, he stops and stands around, letting his quarter and guards do too much, and thus altering what should be a normal proportion of work.

The Quarter in Team Play. Four quarters are the equivalent of eight ends, and are necessary on account of the importance of getting the quarter out into the interference. This is exhausting, and as soon as the quarter slows up, he should, like the end, be replaced by a fresh man. If he is not, then the interference slows up to let him get in his place, the rumer slows up to let his interference reach the line, and there is not a man in the whole combination who does not begin to retrograde. And yet in late season, when the team is meeting strong opponents, no one can tell what is the matter with the interference !

The Number of Backs Necessary. Finally, the reason for the twelve backs is easily apparent to any one who has tried to take a team through a season. It is not necessary that more than half of the number should be punters, as one can generally count upon using two running backs to one kicking back. But the running backs get far more to do on the defensive, and hence are more liable to injury.

Team Play Begins with the Guard's Position. After. then, making an attempt, in the very earliest selection of
candidates, to secure approximately the above proportions (and if the first quota varies greatly from this, to adapt and shift the men about early, so as to conform in as short a space of time as practicable to these numbers), the coach is ready to consider what may be done toward team play, while the real work is still largely individual. At the risk of exciting some controversy, perhaps, but with a thorough conviction that in the long run the statement will be found correct, let it be said that team work on the offensive should start with the guard's position. The general method has been to begin offensive team play with a number of interferers massing out for a run at the tackle hole or around the end. The effect of this beginning is always to delay the practice of genuine team play until after the ordinary straight runs have been used for some days and weeks ; then the interference must all be begun by really a retrograde movement in point of speed. That is, in order to get the interference into form, the plays are almost walked through, or at best gone through at but half speed.

Proper Sequences. But with the proper beginning and a proper sequence of work, this element of slowness can be largely avoided, and, best of all, team play, though not of a marked character, may be initiated at the very outset of the season. It may reasonably be demanded of a properly trained guard that he shall be the first man to get off for the point to be assaulted. His earlier duty is that of blocking his man and getting away. He must block long enough to save his quarter, but that occupies an almost infinitesimal moment of time. His next study is on which side of the quarter to pass, and this depends wholly upon the immediate play. In a majority of cases he goes between the centre-rush and the quarter, but there are many. plays upon the making of which he should go behind the quarter.

This play of the guard is the initial step toward offensive team play, and should be drilled into the candidates from the very start. There is a notion prevalent that to have the guard begin early to learn to get out into the interference hurts his blocking. This is erroneous, even in its theory ; still more in its practice. The guards who make the real
successes of the year are not only strong in interference, but never let their quarters suffer by the breaking through of an opponent. The very fact of the necessity of getting clear of his opponent rapidly spurs the guard to increased study of the possibilities of ingenious methods for keeping the opponent safe and out of reach of the play.

Second Step in Team Offense. The next step in team offense is to get the quarter out into the interference, or, in the cases where he is to follow later, to render him serviceable to the play in either making it safe, or adding the necessary push. This is not such a task as teaching the guard, but it should be begun early in the season, or a team will find that when the quarter endeavors to take it up he has become accustomed to passing from a standstill, and is therefore " off" in his passing because he has a new and additional duty to think of. At first the quarter may make bad work of the attempt to do two things at once, but he must be encouraged and judiciously criticised until he can land the ball with accuracy every time while he starts off "on the jump" himself for his proper position in the play.

The Farther Out the Attack, the Stronger it is. Having thus attended to the guard and quarter, it will be found that the nucleus around which is to be built a strong, speedy interference has come almost of itself. There is no great amount of hurry about adding to this pair until the general play has progressed for ten days or two weeks. Then it is time to find out the relative speeds of the men behind the line, and this first pair of interferers. By various trials of different plays it will be learned that the farther out is the assaulted point the greater is the possibility of really serious attack, and if a coach has the good fortune to bring into a final game his very pick of fast men working well together, a single long interference at the end may give him a commanding gain, even perhaps a touch-down. For this reason he must be satisfied to work slowly, steadily, and patiently toward bringing off a formed interference that shall grow more and more severe as it swings into shape at the end of the line and circles for the critical point.

Men in a Complete Interference. Such an interfer-
ence, to be perfect, should carry a guard, quarter, and one back, with the runner, around the peak. One of these three goes over or out in making sure that the last man of the enemy's extended line dies without a chance of following. The extra men who, beside the above, assist in the long interference may be the far end and the third back. Thus we shall have in a complete interference the quarter, guard, two backs, and an end. (This chapter will not deal with the plays themselves, but a reference to other chapters of the work will show the exact position of the individual players in the execution of various kinds of interference.)

How Line Men should Work. The next step in the general training for offensive team play is the blocking of the line men. Naturally, this is a part of the individual department as well, but it is so necessary to the development of team play that it requires a few words under this head.

Ordinary blocking consists of merely preventing the opponent from getting through and spoiling the play. Blocking in the team sense adds the feature of getting the opponent into the most unfortunate position possible, so far as his hopes of taking any part in the subsequent stopping of the runner is concerned. For example, it is far better to get an opponent moving in the opposite direction from that he eventually finds he should have taken, than to merely hold him in his position, for in the first case he also interferes with his own men, who may have diagnosed the play better than himself. This is the underlying principle of team play in blocking - to make the opponent actually help in the interference.

Next, the forwards should be ever ready in case of emergency to take hold of their own runner and drag him forward. In almost all line plays there comes a moment when, before the runner has gone down, he is so situated with regard to one of his own rushers as to make it possible for that rusher to give him a pull of several feet, perhaps even yards. It has often happened, on account of this unexpected variety of assistance, that a runner is not only helped along, but even shaken free and put securely on his feet again for a run.

Aside from this added gain, it is the part of the forwards to always give their backs physical assistance in getting on their feet when the play has to be particularly continuous in point of repeated plunges by these three men. With this help, and the moral force of such encouragement, three good backs can smash a stout line for fifteen minutes at a stretch, before they lose their dash.

Final Aid to the Runner. The assistance to be rendered by pushing a runner after he strikes the line is of late years well understood, and almost all teams put it in active practice. There is no reason why this should not be inculcated early in the season, for it does not in any way interfere with individual development. It is a matter of skill, too, more largely than is generally supposed. A runner, for instance, pushed from the hips and in a line with his direction, keeps his feet well, gains greatly in momentum, and can keep his eyes open for chances. A runner pushed above the hips, or not in the line in which he is going, is likely to be upset, and may, in trying to save himself, fumble the ball. The strangeness of being pushed often causes a runner at first to object, to say that it bothers him, and that he can do better without it, but after becoming accustomed to it he always finds the value of it. The most successful example of this added force is usually exhibited in the case of a good end and tackle working together on a tackle run. The drive of this pair when they come swinging at a line low and hard is a bad thing to face.

Importance of Rapid Lining Up for Successful Team Play. While it is hopeless to attempt rapid play during the first few days, the coach who expects to develop team play must not let more than a week or ten days go by before he begins work upon the subject of lining up quickly. There can be no team play on the offense or defense if there be a laggard on the line. Every man must jump for his place as soon as the referee has called the ball down; in fact, as will be seen later, on sequences of plays, when the ball is in possession of his own side, there may be times when a man must get in place when he sees his runner coming down.

How to Hurry the Play. One of the best methods of
hurrying the play early in the season is to take the centre men aside before beginning the practice, and tell them privately that you want them to see how fast they can drive the team, and that for the first ten minutes you want them to jump for the ball the moment it is down. Then tell the quarters the same thing, only in addition, that they shall give the signal on the run for the line-up, no matter whether it is a good play or not. If the ends are slow, let the quarter work in a kick on the first down several times. If the guards are slow in lining up, let him give straight line bucking by a half.

Defensive Team Play. Defensive team play should be begun by instructing some pair of men to help each other out in word and act. For example, take the guard and tackle. Tell each separately the strength and weakness of the other, and then explain how they must aid one another by supplemental work. If they have good heads they will take it up readily. There should be no loud calling out of what the opponents are likely to do. That sort of work often does more harm than good. But a general caution, such as "Look out for a fake!" or something of that kind, is all right. Especially should the two men learn that they are responsible for results, - not merely for their acts, but what comes from those acts! This brings about unselfish team play and does away with the host of excuses. The relations of the various positions, one toward the other, are described in another chapter.

Backs on Defense. Defensive play by the backs in team work should be practised on the regular field of play and also in the kicking practice. One of the best theories is that of the formation of a triangle by three men whenever a kick is to be caught. This triaugle is, of course, a very loose arrangement and subject to much modification, but whenever the kick is high enough, or there is time, two men should eventually reach the proximity of the man catching the ball in time to be of service to him in interfering or in saving a muff or fumble.

Field Divisible into Two Halves. The various arrangements for defensive team play are treated of in other chap-
ters. Here it is enough to say that team play demands a defense that depends as little as possible upon any fixed formations of the opponents. Eleven men are too cumbersome a body to be handled in a minute and rearranged by a word, while the opponents are ready for action. The most that should be attempted are the changes incident to a probable kick and the few minor movements in the line-up, such as a line man crossing over when the play is crowded against the edge of the field. Each line man in defense should, in his mind, Aivide the field into two halves by a line drawn through the ball, and should think of his half as either facing the runner while the other half pursue him, or pursuing him while the other hulf front him. Many an up-to-that-point unsatisfactory line man has become a good one when he once had this picture clearly in mind. The half of the line before the runner - end, tackle, and guard - slow up the play by their assaults upon it, while the half of the line behind the runner chase him and take advantage of that slowing-up by their comrades in front to overtake the play.

Working a Man Through. For the three centre men, and occasionally the quarter, there is a special line of team play on the defense based upon the principle of getting one man at least through absolutely unobstructed. Sometimes the two guards help the centre through, sometimes a centre and a guard open up for the quarter, sometimes all stretch the opposing line as far out as it will stand and every one takes his chance. No matter how it is done, it should be distinctly understood by each man just which one of the methods is to be used. For this reason one man of this body of four who has the best judgment should always give the signal as to which method to use.

Mutual Assistance without Sacrifice of Individual Skill. Generally, team play should be taken to include also all the smaller, finer points of mutual assistance, and this may be best developed by frequent meetings, talks, and free discussions. In fact, the great backbone of team play can be formed only by such methods. In conclusion let us say, however, that there is no fault that will so surely defeat a
team as the sacrifice of individual understanding and execution to that part of team play that is known by the term "tricks." The first thing a team asks of a new coach who comes with a reputation for skill in tactics and successful team play is, "Teach us some tricks." There is only one trick that will win, and that is work. There is no royal road to victory. Every team must go through the dust and dirt and the hard daily practice to master the individual detail of each position. When that has been done, then team play will come without blunders, and a trick, though seldom very successful, is not attended by certain disaster.

## CHAPTER XI

ON THE USE OF TRICKS IN FOO'BALL
The Player's Idea. The value and place of tricks in football is very generally misunderstood. To the players themselves tricks have an abnormal fascination. They seem to offer a short road to success. Deep down in the average player's mind there exists the feeling that tricks are the side-door to victory. The main entrance is through the hard daily toil, the well-grounded, consistent policy, and the long weeks of daily drill. But the side-door, although it offers a narrow entrance, seems, nevertheless, to offer a quick one. Given a reasonable amount of proficiency in the fundamentals of the game, and a strong defense, it often seems to the player as if one or two successful tricks would bridge the wide chasm which exists between the mediocre work of his team and the well-drilled but familiar interference of his opponents.

The Spectator's Misapprehension. With the public there is, perhaps, an even greater misapprehension in regard to tricks. The fickle public, with its constant tendency towards exaggeration, magnifies the importance of the successful trick, and bestows upon its author a degree of praise of which he is, in great part, unworthy. But the laws of compensation work here as elsewhere; to the same extent that its praise is exaggerated is its blame magnified when the attack fails, or when, through its misuse, the trick works disastrously; too much blame cannot then be heaped upon its author. In fact, the coach who supplies one or two startling tricks to a team, stands a fair chance of confusion because of over-praise or over-blame.

The True Conception. This state of affairs is, perhaps, as clear an evidence as is needed of the general misinterpre-
tation of the place and value of tricks. A trick is a good thing if it is rightly constructed and rightly used. In its very nature it presupposes that certain opponents shall be misled, or shall follow their instinct as against their training. Therefore the success of even the best trick is doubtful. It is nothing but a hazard, more or less uncertain, and it finds its best warrant for existence when it is used in an emergency, as in the last three or four minutes of a game, when the score is slightly against the team ; in other words, when there is everything to gain and nothing to lose by its operation.

Value of Tricks to a Team. Every team is the better for having two or three trick plays, provided only that the captain and quarter-back understand when and how they should be employed. This last point is important, for even the best trick may be so misused that its possession becomes a positive disadvantage to the team, while its reasonable use would have been of material value. But it is not difficult for the quarter-back of a team to gain a correct estimate of the needs and uses of tricks, and it may, therefore, be safely laid down that each team should employ one or two of them in the critical games of the season.

How They should be Made Up. A trick, to be of any real value, must be one movement in a series of plays from a common line-up. The reason for this is clear: if no other play is worked from the line-up, the success of the trick is limited to a single trial, for after once being used it will be tolerably familiar to the opponents, and on a second trial the method of stopping it (if it is a trick, pure and simple) will be discovered. Furthermore, the deceptive feature of a trick, which is its only element of value, is strengthened by an earlier introduction of some other play from the same alignment, so that the opponents are not simply attempting to diagnose the probable outcome of a new line-up, but are actually led to believe that they already know the plan of attack, and are only waiting for the ball to be put in play to take the same steps to check it which they employed before.

The old Greek tutor charged a double price to instruct those pupils who had been taught by any other master,
explaining that they had both to learn what he had to teach, and to unlearn what they had been taught before. This story illustrates the condition of a team when first meeting a trick which is one of a series of movements from a common line-up; they have not only to learn the peculiar characteristics of the trick, but they are at the disadvantage of having to unlearn, or disburden themselves, of the instinctive tendency which has come with the earlier plays in the same series.

Each Play in a 太eries should be Judged by Itself. In proportion as there are a greater number of movements from the same line-up, the trick, when it is played, will be all the stronger, and if it is possible in a series of four or five plays to have two or three tricks, the series will be, if properly used, one of the strongest weapons that a team could employ.

The question naturally arises, how much can be conceded to a weak play, in order to help out a strong trick play from the same line-up. As a general rule, the concession must be very slight. Unless every play of the series is reasonably strong, the trick, although a good one, should not be attempted. Each play of the series must have sufficient intrinsic worth to warrant the reasonable assurance that, against strong opposition, the team can at least gain its distance in the trial. With this assured, the trick will be all the stronger when it is tried, for the very fact that the first effort resulted in the gain of the required distance will naturally compel the opponents to rush to its defense with even greater energy than before; and in proportion as they are instant on the defense are they hurrying to their own undoing. Thus the strength of each play in a series is contagious, and increases the strength of every other play in a first trial.

When and Where Tricks should be Employed. The first and most important place where a trick should be employed is in the last three minutes of a match, with a slightly adverse score. This is an emergency when everything may wisely be staked upon the issue of even the most hazardous trick; if it fails, the conditions are unchangerd, and there is
still at least a chance. It is a time for the application of the motto, "Nothing venture, nothing have."

The trick used at such a time may be of a different nature from that which would be employed at an ordinary stage of the game. In other words, it may be one of a most hazardous class of plays, such as a long double pass, or a difficult criss-cross, in which the effort itself is not only extremely difficult, but in which there may be a large risk of the loss of the ball. On the other hand, such plays, if successful, are usually abnormally successful. It seems as if the very hazard of the undertaking brought with it an additional measure of reward, and a touch-down is often the result of the successful execution of a play of this description.

A Side-Line Stratagem. Another opportunity where a trick may be wisely employed is offered when the ball is close to the side line. The possibilities of strategic operations in such a situation are very great, and any team which takes to tricks readily, and handles them skillfully, will do well to have in its repertoire at least one side-line trick. It is nearly always a play which makes every appearance of starting for the long side of the field, but by a dodge or crisscross sends the runner with or without a single interferer, down the short side of the field, close to the side line. It is usually not a difficult play to bring off, but the runner should be cautioned against allowing himself to swerve over the line at any point in his run.

After a Loss on First Down. Another place where a trick may often be employed is on a second down, where the first down has resulted in a loss, and there is consequently over five yards to gain. The chance of gaining this increased distance in a single attempt by a direct attack is generally so small that it is a good time to employ a trick.

The relative value of a straight play and a trick may perhaps here be stated in such a manner as to make the whole subject easier of comprehension to the student; let it be understood, then, that a straight play is more certain to gain its distance than a trick play. It is less certain to gain an exaggerated distance. A trick which will gain one yard is almost equally certain to gain five or six yards. But a legit-
imate play is much more certain to gain a yard and a half than a trick play is of gaining at all. If a correct count was kept of the distance gained by each legitimate play and each trick, it would be found that the average of distance gained on tricks was undoubtedly greater than on legitimate plays, but the relative number of failures to gain any distance would also be greater in the trick list than in the legitimate list.

This teaches an important lesson, that trick plays are hazards, and that tieey are only to be used in situatious which peculiarly adapt themselves to the acceptance of a hazard. This might be given as the formula or ground principle, upon which all tricks should be used: let the quarter-back once thoroughly grasp this, and there will be less danger of the misuse of tricks.

How Tricks should be Tested. Every trick, before it is incorporated into the team's list of plays, should be thoroughly tested against at least two or three different elevens.

A football team is like a baseball nine in certain respects. It has " off days," when it plays poorly ; it has men in important positions who are exceptionally weak in certain single features of play, betraying in these a weakness far below the average ability of the team, - a weakness which cannot be counted upon in other teams of relatively equal strength. Furthermore, a trick, depending, as it does, upon the misleading of an opponent, can only be correctly gauged as to its value by the average of its workings upon a number of occasions. It is planned in uncertainty, and operated in uncertainty, and its value will be uncertain, if judged by any single trial against a single team. Only by records, carefully kept and averaged, can its true merit be known; and such records should always be secured by the captain.

Individual Opinions are of Little Value. It may be set down as a safe rule that the opinion of no man, be he player or expert, is of great value in regard to the probable success of a trick before it is tried. In no single point in the whole game of football does a man write himself down a greater blunderer than in daring to predicate the success of
a movement before it is tried upon the field. Over and over again has the experiment been tried of showing a play upon paper to each one of half a dozen coaches, in private, with the result of half a dozen different opinions in regard to it.

In one such instance, four coaches were asked the probable man who would be dangerous to the working of a certain trick, or, in other words, the man who would check the play or bring down the runner. In each case a different man was named, and the result of these interviews was that four different objections were established to the play, because four different men in the defending team were singled out as "sure to stop the runner." When the play was tried, not one of these men was able to stop the runner until the play had gained such substantial distances as made its value assured for the entire season.

Therefore, take the opinion of no individual, however expert he may be, or however good may be his judgment, as to the value of any trick play, until he has seen it tried against opponents who are not familiar with it. Remember that every play looks differently on paper from what it does upon the field, and when the basis of a play is the deception of the opponent, it is impossible to predict the result with any degree of accuracy.

How many Tricks should be Employed. The number of tricks which should be employed by a team is an important matter. By this is meant, not the number which should be tested or tried, but the number which should be carried by the team into its final matches. This number must depend wholly upon the character of the team, as a team. If it is composed of heavy men, good at sledge-hammer ground-gaining, but not light and shifty upon their feet, one or two tricks are all that can probably be used to advantage. If, on the other hand, the team is composed of exceptionally light men, quick on their feet, good dodgers, clever at picking their holes in the line, and ready in expedients, the number of tricks may be increased up to a limit of five or six, beyond which number it is very rarely wise to go.

Hints upon Selection, Let the tricks be selected with great care, and in estimating their value do not forget
that a less showy trick, if placed in a strong series of four plays, is worth as much as a more brilliant trick played with only one other play in the complement. Test every trick before it is used, and test it against different elevens. If this is impossible, endeavor to arrange for the change of the immediate defenders in your opposing team, and substitute in their positions green men who do not know the play. This will afford an opportunity of seeing how different men, who have been coached differently, will meet the conditions by which you have surrounded them.

Final Hints as to Tricks. Never forget that a trick is, after all, nothing but a trick. It is not football per se, but rather an offshoot of the game, born of the wonderful tactical possibility of the game, which is one of its greatest charms. A good trick is no disgrace to the sport. The odimm which attaches to it is a case of "give a dog a bad name." If we call it a stratagem, it is dignified at once into a piece of headwork, by which brains may triumph over brawn.

But remember that it is not enough for the trick itself to be successful; it must also be used successfully, and by this is meant that it must be used sparingly, and only when the conditions clearly call for its use.

Finally, in giving tricks to a team, let them be surrounded by a reasonable degree of mystery, and let them be taught and rehearsed in private, if possible. Encourage the team to believe that they have in their list one or two trick points of decided advantage, about which their opponents are in entire ignorance. Encourage them to take a hopeful view of the result of such movements. They will then play them when they are called for with a much greater dash and spirit, because of their belief that the mine which they are about to explode will be all the more destructive because it is unsuspected.

## CHAPTER XII

## HOW TO CONSTRUCT PLAYS

Expert Knowledge not Required. The opinion prevails to a large extent that, in order to construct successful movements or plays for a football team, it is necessary to have a very thorough knowledge of the game, or to be specially gifted by nature with an inventive mind. As a matter of fact, neither of these is essential, and any one who has interest enough in the subject to give the time needed may construct very successful plays, although not in any way himself an expert in the game of football.

Nor is it necessary that one should have actually played the game, although it is essential that he should have a very thorough knowledge of the rules, and be reasonably familiar with the game itself, as it is played. This knowledge would naturally be the property of any one who wished to construct football plays, since interest in the subject might fairly be assumed to presuppose a knowledge of the game, and at least a superficial knowledge of the rules. It is only necessary to strengthen this superficial knowledge by constant reference as the work progresses.

At the very start it is a good plan to cut loose from old traditions, which are often false or misleading, and from all impressions of existing plays. In other words, do not try to improve the old-time plays, but strike out for yourself into new fields, and endeavor to open up undiscovered channels along which operations may be successfully begun. Remember that the game itself changes from year to year, and that the football player of half a dozen years ago, if he has not continued his study and interest, is quite behind the modern game of to-day.

Let us, in this chapter, speak directly to the reader who
may wish to enter this interesting field, and in order to make what we have to say more explicit and perhaps more interesting, let us address him in the second person, as if we were face to face.

The only idea which you need to have in your mind is the single question of how to carry the ball through the opposing line, under the necessary restrictions of the playing rules. Drop every other thought from your calculations, and go ahead on this broad basis, and you may be surprised at the success of eveh your first crude efforts.

Two Different Methods of Work. You have your choice of two different methods of work. Neither can be claimed to be superior, and both may well be tried, with a view to adopting that method which proves most successful for you. One method is to use merely pencil and paper; the other method is to have small blocks, dice, or counters, representing the players themselves, and group them or move them about upon a table or slate, on which is drawn the plan of a football field.

If this latter method is employed, be sure that the spaces upon the field are in the same relative scale as the size of your counters or men. In other words, the size of the whole working equipment of diagram and players should be in correct relative proportion throughout. This is important, and it will greatly handicap your efforts unless you start with this one point accurately determined. Make the width of the field in the same scale as the five-yard distances. Then calculate how many men are needed to stretch across the five-yard spaces, if they stand at the customary distance at which football players are separated. This will determine for you the proper size of your counter or block which represents a player.

In the use of these two different methods, it is a good plan to use them alternately on the same play. In other words, having first constructed the play on paper, test its practicability by placing it on the field according to your second method of work. A play will frequently not look on the correctly-scaled field as it does on the roughly-drawn sheet.

Errors to be Avoided. Now that you have selected your method of work, let us say a few words on the errors which you should avoid. Your first efforts will very likely be wasteful of men. There are only eleven of them, as you will soon learn to your sorrow, for many a clever move will fail you for the lack of a twelfth man. At an early stage of your work you will discover that it is an unwise policy to make "bluffs" without the ball. In other words, the operation of sending two or three men on a "fake" dash toward the side lines, even though they make every appearance of having the ball, is expensive fooling. It may draw an end rusher down, but it probably will not. You must make your bluffs with the ball ; that is, generally speaking, let the ball go with the play. A great deal of time may be spared by avoiding that fascinating but fruitless line of operations which always tempts the novice, and in which a great demonstration is made in one direction, while the ball, in the hands of a single runner, with perhaps one interferer, or often with no interferers, is started in exactly the opposite direction. Very rarely can such attempts be made without loss.

A second tendency of your earlier efforts, against which you should guard yourself, will be to subdivide the work. For example, if four men have separately to do two or three different things, and it seems possible for you to unite the four into one body, and let that body do the different things together, it will always be wise to so unite them. It is a safe rule to lay down, that individual labors should be united wherever it is possible. Bunch your interference around the ball.

Securing the First Idea. The first thing to secure in constructing a football play is an idea or conception of the movement, which, let us hope, will be an original one. The best ideas will not probably come to you when bending over your desk. They are far more likely to occur to you when walking in the street or riding on the cars, provided your thought is upon the development of the game. The instant you have the idea, take pencil and paper and go to work upon it without delay. Develop it fully, and do this at
the earliest possible moment, before the train of thought has passed from your mind. If you have under consideration what you think is a correct new principle of attack, do not lose patience when you find it exceedingly difficult to work out your exact line of play from this principle. Remember that the principle is the important thing, and persistent thought upon it will nearly always prove fruitful in the end; the right play will surely suggest itself.

The Paper Upside Down. Right here there comes in a curious feature: ybu must work out your problems upside down! In other words, let the centre of your paper represent the defending line of your opponents, and bring your lines of attack from the top of the sheet down into the plan or diagram. To put it still more clearly, let your own team occupy a position at the top of the sheet, facing you, while you, in imagination, are occupying a position behind your opponents' rush-line, and not behind your own. Let the assault be directed at you, and you will be more quick to detect its weaknesses as you stand in the position of defending it.

New Principles from Old Ones. A new principle may often be built up on the improvement of an older principle. Thus, for example, the criss-cross may be perfected to a point which shall eliminate every dangerous feature (such as loss of the ball in the double pass, etc.), and make the confusion of the opponents doubly disastrous by compelling them to criss-cross their own forces as they follow the crisscross of the ball. If you can devise a series of operations which shall bring two groups of your opponents moving against each other in exactly opposite directions, you have accomplished a master stroke, and one which will repay a generous expenditure of time in its development.

A Method of Working Backward. When, after much study, no new method of attack suggests itself to your mind, it is possible to proceed by a different method, and often attain a most successful result. This method is to "force a situation" by grouping your men in the most advantageous positions for them to effect a break through the opponents' line; then, working backward from this group,
trace the path of each man from his place in the group to his position in the original line-up. Choose your men with a view to effecting the line-up with the least possible confusion, and make your assignments in the interference correspond with the distance at which the player is located from the immediate spot of attack, to the end that the men who join the attack at the latest moment shall be naturally the ones who have the longest distance to travel. It is astonishing to discover what really good plays can be developed by this method.

Still Another Method. Another method of originating plays is to proceed along the following lines: Provide yourself. with a collection of thin sticks or whittlings of some soft wood which will bear bending in various curves, and to different angles. With these sticks you can obtain a good idea of the possible concentration of men for an attack at any point along the line. By laying the sticks down, - a single stick accurately designating each man's course or path, letting each stick start from his position in the line-up, and terminate at his position in the final movement, - these sticks will then give you a graphic picture of the appearance of the movement at all stages. They will show you the route which each man travels and enable you to correct any possible interference of one man with another. They will give you a clear idea of the original line-up, and another comprehensive view of the interference when it is fully formed around the runner. They will further help you to effect the right assignments of men for the different labors of the play, since the length of the sticks shows the ground each man must cover to join the interference. In a word, the use of these sticks materially assists in the proper "timing" of the play, and time is the most important factor in football operations. No man can be a successful football general who does not realize the value of the fraction of a second in all operations. The use of the sticks which we have just described will reveal the possible danger which often arises from two players crossing each other's tracks in reaching the interference.

It is no drawback to a play, but rather a distinct advan-
tage, to have the interference so carefully timed that the men shall cross each other's tracks in what might appear to the casual observer as a most reckless manner, but which practice will easily demonstrate to be an entirely safe movement if accurately timed at every point. It is such a movement which most confuses an opponent, for it is the perfection of accurate timing. Few mistakes can be made in constructing football plays if the student will but insist upon the vital element of duration of time in every movement.

Assigning the Men. When the play has been successfully conceived, a very important feature in the work of developing it is the assignment of the men for the particular labors of the play. These assignments will often be suggested by the peculiar ability of a certain player to do a certain part of the work. All care should be exercised, especially if the line-up is of a novel or unusual nature, to make the assignments so that the line-up may be taken in the quickest possible time, and with the least confusion. It is always a drawback, and sometimes a sufficient condemnation of a play, if any appreciable moment of time is needed to take the lineup. Delays of this nature inevitably slow down the attack, and this is always a disadvantage to the side which has the ball.

Value of Detail Sketches. It is a very common practice, in illustrating points in football, to make a random sketch on a slip of paper (often the back of an old envelope), and as soon as the consideration of the point is concluded, or the paper is covered with the drawing, it is carelessly destroyed. This is a great mistake. It is impossible to foresee how much advantage may come to you through the ability to refer to a previous sketch, which, perhaps, at the time you made it, seemed wholly impracticable, but which, in the light of more recent developments, takes on a new value, and is now of the greatest service to you. To insure the preservation in compact form of all these random sketches and studies, it is a good plan to keep a scribbling book, in which shall be kept all studies of plays, detail drawings, random sketches, and casual memoranda of every sort concerning football. Never use odd scraps of paper! Let everything be
entered in the book. A very cheap blank book will answer all needs, so long as you adhere to the rule that every sketch or drawing shall be thus preserved, whether it seems of any value at the time or not.

Sequences from One Line-Up. It is a safe rule that plays are doubly valuable when more than one play is constructed from a single line-up. It is, therefore, an excellent plan to always build a second play, which may act as a foil to the first movement, both movements starting from the same line-up. If the first movement is a deceptive one, the second movement may be the correspondingly natural tendency of operations. If both are played with equal skill, each helps the other. Until they are both fairly familiar, the opponents will have great difficulty in knowing which movement is coming. These two movements taken together constitute what is known as a series of plays. Series of plays of this nature (each play starting from the same lineup) are used by every college team. The average number of plays in a series is four, but many have six or seven plays, and some have been known which had as many as twelve. One especially good series was once used which had sixteen different outlets. An added value in the use of series plays is found in the fact that the team avoid the necessity of learning new line-ups. This is an important point, especially where substitutes are called upon during a game. It is a good plan, therefore, in building plays to group them, as far as possible, into series. If two separate plays have been invented, it is often possible to harmonize the two so that they may both be brought off from a common line-up.

It is difficult to lay too much emphasis upon the disadvantage to the opponents when the second play of a series is tried, the first play having already become tolerably familiar through repeated use. It is probable that the first play will be the natural tendency or operation of the line-up, while the second play will be the strategic or deceptive operation. When this second play transpires, it is a strong temptation to the average player who is opposing the play to "play for the trick." By this phrase is meant to play in a purely mechanical way upon the assumed familiarity with the ear-
lier operations of the opponents. This tendency of a football player to go against his training, and rely too much on his judgment, is always strong, and it is this weakness which is taken advantage of when plays are grouped in one series with a universal line-up. In proportion as football players are taught to follow the ball, this dangerous tendency is less apparent.

Important Questions that Arise. Several interesting questions will suggest themselves at an early stage of the work - questions as to the easiest and hardest points in the line to assail ; as to the value of an extra man in the interference, who may tend to slow it down, or to prevent its forming and getting away as quickly as it might do if he were not of its number; questions as to the relative merits of a play constructed with an evenly balanced line-up on each side of the centre, as opposed to a play, with a onesided line-up, which leaves no reasonable doubt in the minds of the opponents as to which side of the centre is to be attacked ; and many questions of a similar nature. In general, it may be said that the easiest point in the line to assail is the tackle-guard hole; the most difficult is a run around the end. In developing a round-the-end play, bear in mind that the first and most vital matter is that the rumer shall get away quickly. It is not too much to say that a play which gets the runner started instantly, with comparatively small interference, is always preferable to a play which carries a much more formidable interference, but wastes an appreciable interval of time in its formation.

Where Balanced Line-Ups may be Most Effectively Employed. We have already mentioned that the easiest point in the line to assail is the tackle-guard hole. It is also, in many respects, the most profitable ; it is certainly the point at which the majority of plays is directed. When assailing this hole, it is best to build plays with a balanced line-up; or, in other words, with a distribution of men which shall leave an equal number on each side of the centre, so that the opponents will find it impossible to determine in advance, from the appearance of the line-up, on which side of the centre the rumer is to be met. This prevents their effecting
a concentration of the backs on either side of the centre, and leaves only one rush-line back for the immediate supplementary defense.

The Wisdom of Exchanges when on the Offensive. In the construction of all plays, it may be set down as a safe rule, that exchanges on the offensive are always wise. For example, if by sending one of your men twelve yards back, with the evident intention of ordering a punt, you can induce your opponents to send an extra back up the field to receive the expected kick, it is always a wise exchange to make. Your own back can then, by starting quickly, be of some possible use in the play, and certainly join the secondary interference, while your opponent, who has gone up the field, will be of absolutely no service in the defense until the line has been pierced, and valuable ground has been gained.

On the same principle, if it were possible for an end acting on the offensive to draw his opponent out across the field and away from the immediate scene of action, it would be good policy for him to do this, since the value of men, numerically, is greater on the defensive than on the offensive. This point will be found more fully discussed in another chapter.

Plays with a One-Sided Line-Up. When a play has a one-sided line-up, or, in other words, when your men are massed in large numbers on one side of the centre, it follows, as a matter of course, that you will take an entirely different attitude towards such a play, and that your work will be less hampered, since it is perfectly clear to the opponents on which side of the centre the attack is to be made. There is much to be said in favor of one-sided line-ups, for however great the concentration of the attack may be on one side of the centre, it is unusual for an opposing captain to call over an end or a tackle from one side of the line to the other, to meet an unexpected concentration. Of course, if the line-up is in close proximity to the side line, the opposing captain would be justified in transferring a man from the short side to the long side of the field, in view of the limited width of territory to be covered in one direction, and the great danger of operations in the other direction, by reason of the wide
stretch of territory in which those operations may be conducted. But at all other times, the line will practically remain the same, however great the concentration may be upon one side, and this is a great advantage in favor of the onesided line-up. Naturally the rush-line backs will move over a trifle toward the stronger side, but this is only the secondary line of defense, and it is much more than compensated for by the requisitions which you have made from the deserted side of the centre.

Value of an Unexpected Kick. In developing any series of plays, it is well to remember that a quick, unexpected kick is most valuable at certain stages of the game, and one such play should, if possible, be included in every series. The addition of a quick kick is especially desirable in a criss-cross series. Vice versa, if the line-up is plainly for a punt, and the position of the full-back has induced the opponents to send an extra back up the field, the conditions are then most favorable for a criss-cross.

Operating a Fake Kick. It is an excellent plan to include in your series one play of the style known as a "fake kick," or a sharp dash through the side of the line from which the rush-line half has just been withdrawn and sent up the field, as the extra man to receive the expected punt. Fake kicks are a most powerful method of attack, and they have this added advantage, that they may be worked more rapidly than any other style of trick play. It is no unusual sight to see repeated gains of fifteen to twenty yards made against opponents who have not been sufficiently coached on the true protection against fake kicks.

Another Form of Strategy. One other profitable direction for strategy is to make use of a familiar procedure in an unfamiliar way. For example, the calling back of a guard to head a heavy interference is a familiar form of procedure, in connection with a round-the-end play, or a mass attack at the tackle-guard hole. In either case the guard heads the group, and in some cases takes the ball himself. Now it is easily possible, after a play has been made up, to introduce this familiar procedure of calling back the guard, but without, in this case, having any object in view except the very slight
suggestion which it may give to the opponents that the play is to be one of these two familiar forms of attack. In reality the guard has been called back for no special purpose, but the simple change of work between two players, trifling and unimportant as it is, may yet be valuable from its mere suggestion of operations along the familiar lines suggested by the coming back of the guard.

Conclusion. Much more might be said on the subject of the construction of plays, but it is only possible, in the brief limits of this chapter, to assure the reader that any effort on his part to construct plays will be productive of much pleasure, and to again emphasize the fact that interest in the sport itself is all that is needed as an equipment for the work. The neophyte should never be deterred by the suggestion that he is not familiar with football. Successful plays have been repeatedly designed by men who knew comparatively little of the game. With the few brief hints contained in this chapter to guide him, and with a warm interest in the sport to serve both as a stimulus to his thought and a practical help in his work, he may devote his time to the attempt with every reasonable assurance of success.

## CHAPTER XIII

FOOTBALIL DON'TS

. What is Footbell Instinct? This little collection of the faults to be carefully avoided in football should be thoroughly instilled into the mind of every player; he should commit them to memory, and keep them constantly in mind, until the thoughts which they embody have become a matter of instinct with him.

One often hears the expression, "football instinct." Perhaps there is no better definition of instinct in football than the emergency ability or proficiency to which a player has attained, who has so far mastered certain principles that in his playing he is rarely guilty of any of the errors pointed out in this chapter. It is not too much to say that the student whose game is up to the level of the tenets here laid down may be classed as a really great player.

What this Chapter Includes. It is not intended to present here a complete collection of the "Dont's" of football, but rather to name a few of the more important ones, and with them to include some of less importance which, by a singular fate, seem always to be overlooked. The player should add to this list any special suggestions which may cover the weakness of his individual play. The list which we here give, and which is rather to be regarded as a collection of general faults, is as follows : -

Forty Cautions to the Player. Don't fail to play a fast game. Line up instantly after each down. Your game is twice as effective if there are no delays.

Don't slug. Scrapping is not football. More than this, it prevents good playing.

Don't wait for the opposing runner in the line. Break through and stop him before he reaches the line.

Don't tackle above the waist or below the knees, but always at the hips. When about to tackle, keep your eyes on the runner's hips, and he cannot so readily deceive you in his movements.

Don't let any player whom you tackle gain an inch afterward. Never let him gain his length by falling forward. Lift him off his feet and throw him back toward his goal.

Don't fail to try and take the ball away from an opponent when he is tackled. Make a feature of this, and you will succeed oftener than you anticipate.

Don't let any thought take precedence of the ball itself. Keep your mind on the ball. Follow its every motion as far as possible. Always be ready to drop on it after any fumble or misplay.

Don't be satisfied with a superficial knowledge of the rules. Master every detail.

Don't let your opponents know when or where you are hurt.

Don't make excuses, however good they may be. There is no room in football for excuses.

Don't answer back to a coach upon the field, even if- you know him to be wrong. Do exactly what he tells you to do, so far as you are able, and remember that strict obedience is the first requirement of a player.

Don't lose your temper. The man who cannot control his temper has no business on the football field.

Don't be one minute late to practice. The hour named is the hour for you to be on hand. If you have not interest enough to be prompt, resigu from the game at once, for you have not the proper spirit for victory.

Don't rest contented after a misplay. Redouble every energy till it is redeemed by some exceptionally brilliant stroke.

Don't stop if you miss a tackle. Turn instantly and follow the runner at your highest speed. He is your man now more than ever. This is important.

Don't weaken or slow down when about to be tackled.
Don't forget that a touch-down is twice as valuable and only half as difficult to make in the first three minutes of
a game. The opponents are often not completely waked up, and the moral effect of such an immediate score is very great.

Don't try, if you are tackled, to break the force of your fall by stretching out either arm or hand. It is dangerous.

Don't exchange civilities with your opposite in the line, no matter how much the score may be in your favor. It is better to delay conversation until after the game.

Don't "drop your sand "when the score goes against you, or when the ball is under your own goal. Then is the time of all others to show your pluck.

Don't magnify your bruises or let them frighten you. When hurt, make up your mind as quickly as possible as to your condition. You either can or cannot play. If the former, waste as little of your friends' sympathy as possible. If the latter, tell the captain at once, without any false pride, and get your release.

Don't let an opponent know when he irritates you, unless you want more of the same treatment.

Don't let an opponent ever see you weaken. It will simply redouble the attack at your position.

Don't rise from the ground rubbing yourself when you have been thrown unusually hard. You will be thrown twice as hard next time, if your opponent sees you mind a fall.

Don't give an inch in your blocking. If there is to be any space between you and your opponent, let it be on his side of the line.

Don't forget your instructions to " always block the inside man."

Don't give away the play by your attitude or movements in lining up. Watch yourself constantly in this regard.

Don't let half the players of your team be in their positions on any line-up before you have taken yours.

Don't forget the vital principle of team play, which cannot be too often impressed upon the mind. It is this: Team play begins the instant the centre receives the ball from the hands of the runner. In other words, it is a part of team play, and the most important part, to line up more quickly
than your opponents. This is the very truest sort of team play, yet the delay of one single man in taking his place will ruin it completely.

Don't be an automaton. Thoroughly master each principle, and then vary your play as emergencies arise.

Don't let any man be ahead of you in dropping on the ball when it is fumbled.

Don't fail to try to be in every interference before it is finally stopped. Follow each runner, and watch for a chance to push him or receive the ball from him when he is tackled.

Don't play high if you are checking an interference or running as a part of the interference. When you drop out of an interference, meet your opponent as low as possible.

Don't fail to go down the field under every kick.
Don't forget the rule that your own runner must never be alone when he is tackled.

Don't shirk any required study or work for football. Earn the right to play football, or don't attempt it.

Don't be discouraged with your ability or progress. The right spirit in football is worth more than anything. Be sure you have that, and your chances of success are good.

Don't whine about decisions which seem unfair. Accept only honest, fearless officials, and then leave the game in their hands.

Don't do anything to undermine discipline, or you are putting the axe at the very root of the tree.

Don't be careless about guards, protectors, or padding, over any weak, injured, or exposed part of the body. One negligence may cost you the season's playing.

## PART III <br> FOR THE COACH

## CHAPTER I

## GENERAL SYSTEM OF COACHING

Different Branches of the Work. It is one of the peculiarities of football that the coaching of a team calls for the ability to instruct in many wholly different branches which have little connection with each other. It is well for the coach to have these various branches clearly distinguished in his own mind, for it is necessary to take constant account of them in the development of a team.

In the training of a leading 'Varsity Eleven these different branches are usually assigned to different coaches, each coach taking that in which he is best fitted to instruct, and being responsible to the head coach for the faithfulness of his teaching and the successful development of the team along this particular line. The theory of his work is sometimes left to him to prepare, but more often it is decided by the council of coaches, or by the best expert talent at hand. But whether it is evolved by the coaches, head coach, or captain, the theory along which the work is elaborated is of great importance, and should not be left unhesitatingly in the hands of the individual coach who is to superintend the instruction and development of the team along the lines which the theory lays down.

In the development of a minor team, where only one, or possibly two coaches are available, this subdivision of the work and its assignment to different parties is manifestly impossible; but it then becomes all the more necessary that the single coach should keep in mind the various branches of the coaching, and the order in which they should receive attention.

These various individual branches may be set down as follows : -
(1) Coaching Individual Positions. This would include the careful instruction to the entire team in the details of their several positions. A large part of this coaching can be done off the field, or at least outside the hours of practice. The best method for such coaching, where it is practicable, is for the coach to put on his football togs and be prepared to illustrate practically every point of instruction which he gives. The coaching of individual positions should have almost entire sway during the first weeks of the season.

There will come a time when the season is a little less than half concluded, when individual coaching must be sidetracked, and the team handled as a unit. This is the period when team play is being developed, when the relationship between different players is being taught, and when precision, accuracy, and the " getting together" of the team need paramount attention. The coaching of individual positions need not entirely cease at this time, but it should be done in a way which will not interfere in the slightest degree with the handling of the team as a unit. It may be found necessary then to have no individual coaching during the practice, but insist that it shall all be done after the practice, when the players may be taken one at a time, and their individual faults explained and corrected.
(2) Kicking. It is imperative that some one man shall be responsible for coaching the kickers and catchers. It goes without saying, that the kicking ability of the team should not be concentrated in one player. Every one of the backs should be diligently trained in kicking and catching, not only to the end that the best kicker may be developed, but also because, through injury or unforeseen occurrence, any one of the backs may be called upon to undertake this feature of the work.

The particular style of kick which shall be taught is a question which can be settled by the captain and coach or coaches, but care should be taken not to alter the coaching policy in this direction when it has once been started. It may be found advantageous to coach one man for straight kicking, and another man for the side kick, but the most important element of all should be a watchfulness to see
that all the kicking is done in the shortest possible space of time, and that the kicker understands clearly how to receive the ball, and how to handle it to the best effect. His particular stride in making the kick should be carefully rehearsed, and the time required for the pass and the longdistance punt should be constantly timed in practice. The limit of speed which must be attained in this particular has been well established by experience, and it is not difficult to determine arbitrarily whether a kicker is relatively slow or fast. All the various branches of kicking should be taught, and especial attention should be given to place kicking of goals. The points which are earned in this way are very important, since two place-kicks of goal are equal to a touch-down, and it is one of the maxims of football that a coach should strenuously insist upon the recognition of the full value of accurate place kicking.

Kicking practice, calling as it does for only two or three men upon the field, need not be undertaken in the regular hours of team practice, as time can always be found for this individual work.
(3) The Offensive Game. Under this head would come the planning of all the various plays which the team will employ, including the kick-off, the defense of the kick-off, and the protection for a punt. While the responsibility for preparing these plays, and making the various dispositions of men in each play, must positively be assumed by some person or persons, it is not necessary, of course, that the plays themselves should all be planned by this person. As a detail of the general system of coaching, this division of the subject deserves the special study of some competent head.
(4) The Defensive Play. Defensive team play has not reached, in this country, the great development which offensive play has attained. The defense of most teams is characterized by much purely individual play, and the establishment of a scientific theory of team defense has not yet been attained, even by some leading college teams.

As a general statement, it may be said that the defensive play of a team, as a team, should be daring and almost reckless. The moral value of such a defense is very great. It
often happens in the development of a team that where the individual play of the line is very courageous, the team play of the line in defense is cowardly, and the result is almost invariably the spectacle of an opponent's charging forward without meeting any serious opposition until reaching the line! This is equivalent to a tacit yielding to the opponents of one yard on almost every play. The rule should be, "Break up the play before it is started, and always tackile behind the opponents' line." Hence the best theory of defense which can be elaborated must be one which demands of certain players that they shall go "tearing" through the line the instant the ball is snapped, with a view to tackling the runner before he has fairly started, and it may be, in some cases, before even the pass has been made.

Team Defense vs. Individual Blocking. A detailed explanation of a proper theory of defense is not given in this chapter for two reasons: first, it is impossible to formulate, arbitrarily, any system of defense which, in all its details, could properly be recommended to every team, or even to a large majority of college and school teams. Secondly, the various points in the establishment of a correct theory of defense for any team are elaborated in the chapters on relationships of one player to another in the second part of this book.

Some of these theories so far commend themselves that they are given here an entire and unqualified indorsement which is intended to imply that they are sufficiently practical for them to be recommended to any team. One such point, for example, is the relative playing of the tackle and rushline back, where both half-backs are brought up to reënforce the line. In this case, the most acceptable theory of relationship between the tackle and line back would be that which has been described somewhat as follows: The tackle moves out until he reaches a position where he can clearly go through quickly outside of his opponent; if his opponent undertakes to follow him out, the rush-line back steps up into the tackle's place. The opposing tackle will naturally obey his coaching, and "take the inside man," moving in so as to give his whole attention to the rush-line back. The
moment he does this, the rush-line back drops back a yard or more, which immediately takes him out of the line, and he becomes no longer properly an inside man. Following his coaching, the tackle would then move out slightly in order to block his opponent, and the instant he does this, the rushline back steps forward again into the line. This constant see-sawing of the rush-line back and the opposing tackle is maintained up to the point where the ball is put in play. In whatever position the opposing tackle finds himself, the chances are good that both the tackle and rush-line back will get through the line. One of them will certainly succeed in going straight through to reach the runner.

The failure here of the opposing tackle is the old proverbial case of the man who falls between two stools. In trying to take care of both men at once, he is very apt to lose both. This supplementary work of the tackle and rush-line back on the defense should be practised by both tackles.

Preparing a Defensive System. These various details of defensive team play may easily be united into a system from a careful reading of the "Relationship" chapters in the second part, and a selection of those details which best commend themselves to the coach for the development of the particular team which he has in hand. Such a course will build up a stronger defense than were an arbitrary plan here offered for his guidance. His own theory, when thus prepared and carefully explained to the man who is to have charge of the defensive work of the team, should never be departed from in the later work of the season. The defense for a punt and for a drop-kick would not properly be covered by the theory here described, but should be made the subject of special preparation.

Delay in Starting Team Defense. One fact in this connection should be emphasized, for it is an important one, and may come as a decided innovation to some coaches: The theory of the defense should not be given to the team until the close of the third week of the season, not forgetting that there are teams to whom, as a team, this theory should never be given.

The reason for such a delay is the danger, which clearly
exists, that the team may win its minor and unimportant victories in the early part of the season on its theory of defense, rather than on the primary virtue of good blocking. It is better for the team that its early victories should be secured on nothing but straight, simple, individual blocking in the line, with no relationship taught between the players, and no wise theories of defense to aid them. This method may result in keeping the score down in the earlier games of the season, but its value will surely be manifested later in the season, and the course of the coach in this particular will be fully justified by the final results.

When the theory of the defense is at last given to the team, there need be no fears that the line men have not been thoroughly grounded in the primary principles of blocking and breaking through. The higher science, when it comes, will be all the more prized because it will come as a powerful auxiliary to the early training, and, being new, there will be no danger of its being lightly esteemed by reason of overfamiliarity before the season closes. The average football player attaches an inordinate value to anything new, and the chances are strongly in favor of his thinking more and making more of the theory of the defense if it is not given to him until the season is half completed.
(5) Generalship. This is practically a matter which has to do with only three men, the captain, the substitute captain (in case of injury), and the quarter-back.

These three men should know the best tactics to employ in every game and in any position or contingency which may arise. More than this, they should not only understand what to do, but the reason for it, and this clear comprehension of the cause for each action will furnish a groundwork of football instinct which may carry the team safely through many unforeseen emergencies. It may be well, before any important game, to briefly summarize to the entire team the information which has been given to these three men, relative to the especial tactics to be employed in this particular game, and the reason why these tactics have been laid down. This feature of the matter has been more completely discussed in another chapter.
(6) Spirit. Quite apart from the training of the team, it is necessary that some attention should be given to the spirit which must be infused into the players. Football is a game which well tests the mettle of the man. Proficiency in the playing of a position in minor games against comparatively weak teams, or on the field of practice, is not sufficient assurance in itself that the player can repeat this proficiency when he meets a team of greater strength. The elements of personal bravery and a dauntless spirit must not be overlooked, and inasmuch as it is clearly possible to infuse a great deal of this "do or die" spirit into a team, so that its play shall be greatly benefited thereby, it is eminently proper to regard this feature as a separate branch of training.
(7) Conditioning. Under this head comes the work of the trainer. The team must be systematically developed, and their physical condition, entirely apart from the question of personal injuries, should be constantly watched over and developed. With the teams of the larger colleges, this physical conditioning should be done upon a carefully prepared method, which gradually develops the power of the team until it reaches its maximum at the date of the most important game. In the case of these more important teams, where a trainer is employed, this process of development does not properly consider the question of physical injuries, which may, therefore, be treated of under a separate classification.
(8) Physical Injuries. This is a department of the work which must, of necessity, be intrusted to other hands than the football coach. If the services of a doctor have not been secured, some provision should be made whereby an injured player can receive medical treatment promptly.

Head Coach. All of these various departments of the work will naturally be in the charge of one man, or possibly two men, in the case of school teams and the various minor league teams. But in college teams, where the services of graduate players may be requisitioned to assist in the development of thre team, it follows, naturally, that there may be quite a number of coaches, and that the various departments of the work should be assigned to different men. With this
elaboration of the system, there arises the necessity of a head coach.

There is great value, and equally great danger, in the creation of one-man power in any situation, and this value and this danger are both present in the establishment of a head coach for a football team. The thoughtful man who finds himself appointed to such a position will make his influence felt in all important matters, but he will himself be rarely seen. His power is well-nigh paramount, but the public display of his exercise of that power might easily become intolerable; on the other hand, the quiet guiding of the various conflicting questions, so that they shall all settle themselves along lines which wisdom dictates, need raise no antagonism, and will accomplish successfully all desired results.

It is the duty of the head coach to see that the varions coaches attend strictly to the work to which they have been assigned, and that they conduct their coaching along the lines laid down as the proper policy for the development of the team. If any coach, from any cause, fails in the performance of his work, it is the duty of the head coach to see that the work is taken up by other hands, and carried forward. He should especially attend to all questions of discipline; he should make it his business to see that the attitude of the players toward their coaches is the proper attitude, and he should instantly suppress any breach of discipline, exhibition of bad temper, or insolence, from any player to any coach. He should advise with the captain on the laying out of the schedule of games, on the selections of officials, on ground rules, and on all the various questions of management which may arise during the season.

Development of the Team. With these various branches of the coaching work now fairly in mind, it is possible to proceed to a consideration of the proper order of work throughout the various weeks of the season. This order of work may be summarized as follows:-
(1) Primary and Conditioning Work: such as exercising on pulley weights in a gymnasium for a general strengthening of the muscles of the body; short and long runs for improving the wind, cte.
(2) General Individual Work. Under this head would come, for the rush-line, such preliminaries as blocking, breaking through, interfering for the runner, sprint starts, bowling over the end rush, breaking up an interference, dodging, going down the field under punts, long blocking, opening holes, etc. For the backs there would be constant training in kicking, catching, passing, interfering for the runner, quick starting, pushing the runner by shoulder and by arm, etc. Practice in such essentials as falling on the ball or tackling would be required for both rush-line and backs.
(3) Primary Offense. Under this head would come the simpler forms of attack.
(4) General Relationship between the Players. Or, in other words, what is vaguely known as "team play," including the theory of defense. This point in the general development should properly be reached when the season is half completed. The preliminary games, which have been played up to this point, must, of necessity, have been played with insufficient preparation, but it is fair to suppose that the preparation of the opponents has been similarly insufficient, by reason of the contracted limit of the football season, and the fact that the various colleges and schools of the country assemble their pupils within a very few days of the same date.
(5) Secondary Offense. This would embrace the "tricks" and special plays prepared for emergencies and for effective use on one or two important occasions in any game, when the presence of the team close to an opponent's goal has redoubled the efforts of the opponents, and made the gaining of ground exceedingly difficult. In this position, the value of a kick on the third down being very slight (owing to the proximity to the goal line), some special play may be tried. At such times, and at many other decisive situations in a game, the use of a special play is sufficiently important to warrant the spending of a few days at this stage of the season in the preparation of such secondary adjuncts to the offense.
(6) Precision. This may be more fully described as the
shaping up of the interference, the clock-like accuracy of the various individual movements, the establishment of close sympathy between adjacent players, and the general oversight of all the details of play, to the end that greater speed and accuracy of movement may be attained. This last work might not inaptly be called "putting the finishing touches to the team."
(7) Ginger. It would hardly do to call it "spirit," for there is a slight shade of difference in the meaning of the two terms. "Spirit" the team, both individually and collectively, is supposed to possess, but " ginger" involves spirit and something more besides.

It is an established fact that, however hard a team is playing, it is always possible to call upon the men for an extra spurt at critical times. The infusion of ginger into a team is the arousing in it of a spirit which will keenly appreciate the importance of these extra spurts, and be ready to employ them when demanded. It is the putting into the team, as individuals, that "do or die" determination which experience has shown to be so valuable in close football contests. Whoever may be the members of the team, and whatever college they may represent, it will not be found safe to ignore this department of the coaching.

The Progress of the Work. To give the complete detail of the way in which this routine of coaching works itself out in actual practice would require too much space for the limits of this book. A running glimpse of the season's work as it unfolds itself will be sufficient for the needs of the average coach.

The school or college calls its pupils together, as a rule, about the 25th of September, and this event determines the opening of the football season. In the colleges it is the custom for a few of the more enthusiastic players to assemble from one to two weeks before the opening of the term, and even in the preparatory school such advance practising is eagerly entered into by the students, who have a keen realization of the close proximity of the first game of the season, and are anxious to " make the team early."

Let us assume that the college or school opens late in

September, and that the first game of the season is to be played on the following Saturday. Many candidates for the team would undoubtedly be assembled at least one week before the opening of the school, so that systematic practice might be said to be possible at least ten days before the first contest of the season. It must be remembered that during this time the students have no work whatever upon their studies. It is a part of the vacation term, and their entire time is at the disposal of the coach, who can well employ a part of it in getting the men into first-rate physical condition.

First Three Days. To this end the first few days should be spent in the merest rudiments of football, with a great deal of time given to outside exercises not connected with the sport; expanding work to gently stretch the muscles, and short runs to improve the wind, should be the order for these first days. A part of the time can be profitably employed in the rudiments of the game, such, for example, as practice in falling on the ball, kicking, catching, sprint starting, etc. By the third or fourth day especial stress should be given to teaching all the candidates for the line the simplest fundamental principles. They should now make their first attempts at blocking, breaking through, and opening up holes. These three things might properly be called the $\mathrm{A}, \mathrm{B}$, and C of rush-line work, and it is upon the thoroughness with which these are taught that the later success of the team will, in large measure, depend.

While the line men are learning these general fundamentals of their position, the backs should be employed at kicking, catching, passing, sprint starting, interfering, tackling, blocking off, etc. The work of the backs in these directions corresponds to the work of the line on the fundamentals previously enumerated.

Coaching Individual Positions. After two or three days of hard and faithful work on these foundation principles, the time has come to begin the instruction of the various candidates in their special positions. The tackles must be taught the proper play of tackles, the ends must be taught the work of an end, the guards and centre must be faithfully
instructed in the primary requisites of their positions, and so with the candidates for places back of the line.

This work will be going forward necessarily in connection with a few of the simpler forms of plays. No theories of offense or defense will as yet have been presented to the team. They will have advanced only to the point where they have begun to grasp the details of their position, and to have learned a few of the simplest plays, when the first ten days will have expired, and they will be called upon to play their first contest of the season.

Progress up to the First Game. Briefly rumning over their stock in trade for this first contest, it will be found that they have so far exercised and developed their muscles that the first stiffness will have passed away, and a sufficient amount of wind power will have been acquired to carry them through the very short playing intervals which mark the games in this early part of the season. They will have had a certain amount of practice in falling on the ball, and the other general exercises of a similar nature which mark the contest. The backs will be fairly proficient in kicking and catching. They have already begun to apprehend the meaning of interference; they know something about tackling, but very little. The line men will have a general idea of the proper play of their respective positions; they have been taught the first principles of blocking, breaking through, and opening up holes, although in the last-mentioned requisite they will for some time be very deficient. But it will be seen that in a general way the team has reached a point where it is possible to bring off, without discredit, a contest of two ten-minute intervals, with an opponent of about equal strength.

The Succeeding Three Weeks. During the next three weeks, which may stand for the first half of an average season, the individual work of each player should have close attention. The line men should be carefully coached upon the various details of their position play, and many helpful suggestions may be gained by them from the various books upon football which give prominence to this preliminary individual training. It will be wise to pay especial atten-
tion to the work of the quarter-back, to the end that he may handle the ball surely and swiftly in every play. The value of such extra work at this point is easily understood when it is remembered that nearly every play is affected by his quick or slow speed.

These first few weeks of the season are an excellent time for a captain to study his men. Changes in the make-up of the team may be made at this stage of the season with comparatively no harmful results, and many traits of the different applicants will be revealed to the coach, which will serve him at a later date, when the time comes to make the necessary discriminations between the ability of the competing players.

The practice on the field during these first three weeks must necessarily be very much interrupted by the coaching. Care should be taken, however, not to have the interruptions more frequent than is absolutely necessary. A very large amount of coaching can be done without any interruption to the practice. Standing behind a player and quietly talking to him, pointing out his defects, and showing him wherein he can improve, need not interfere in any way with the continuity of the play. The coach should not hesitate, however, to interrupt the practice at any moment when the importance of the instruction or its applicability to every man on the team makes it wise to speak publicly.

An Important Decision: Individual Defense vs. Team Defense. At the expiration of the first three weeks of the season, or thereabouts (the time depending upon the progress which has been made; the team having played its games thus far depending for defense solely upon the individual blocking of the men in the line), an important decision must be made by the coach. Shall the team, as a team, be taught any special theory of defense; that is, shall a system of relationships between different adjoining players when on the defensive be laid down? With some teams it is a serious question whether such a system should be taught to the team as a whole. For the establishment of a theory of defense for the entire team is not without its disadvantages. It makes the men inferior always as individual per-
formers. But failing instruction in a theory of team defense, it may still be possible, during the rest of the season, to insist upon such a coöperation between the different players as shall make the defensive team play of the same high character and undaunted nature as the offensive team play.

The eleven is now approaching a time when it must be handled as a unit. Some one man must undertake to stand behind the eleven and see that its various movements are executed in such a manner that each man's efforts "dovetail" in with those of his neighbor. It will be found that one man is not blocking his opponent properly in a certain play; some rumer is not clearly realizing the exact location of his hole or outlet in the line; some interferences are clumsily formed; some plays are being executed in a way which shows that the players do not realize that these movements are wholly dependent upon the dispatch with which they are worked; and thus, in one way and another, a great deal of faulty and defective work awaits correction. For the larger part of the balance of the season team play must have the "right of way" in all the coaching. Individual work must be wholly secondary, and when not actually done off the field or after the hours of practice, it must be done in intervals of rest, or when time has been called in the practice.

Supplementary Offense. The moment that team play has been brought to a fair stage of development, it will be the proper time to supplement the simple offensive game with the specially prepared movements and tricks. The amount of time required for the team to learn these supplementary manœuvres has always been greatly exaggerated. Really surprising results may be accomplished through the spending of only half an hour on each play. Instances might be quoted where effective plays have been brought off in important games, which had actually not been rehearsed a dozen times in practice, and which had not probably consumed, in actual time, more than forty-five minutes throughout the season.

The Last Fortnight. As the last fortnight of the season is reached, the moments of practice become correspondingly
valuable. It will now be well to examine carefully, in the light of the severer tests which it is receiving, the line-up for the defense of the punter, the line-up for the reception of the kick-off (and the eventuating play therefrom), and the form of attack upon the opposing full-back, when it is reasonably clear that the opponents intend to punt. These are three crucial points in every game, and it is wise not to leave them until the last moment, when the pressure of other matters may prevent their having that careful attention which they require.

Precision is now the important desideratum in the offensive work. The interferences must be formed quickly and accurately; the passes must be made in a manner which does not jeopardize the safety of the ball; the players must be watched, to the end that they do not, by their attitudes and movements, unconsciously reveal the nature of the impending play to the opponents; the team must be made to have confidence in each other, and a close sympathy must be established between all adjoining players.

The backs should be encouraged to take their correct positions, not by turning their heads to look in all directions, but by reaching out and measuring with their hands their distances from adjacent players, and if they give evidence of undue excitement they should be encouraged to talk quietly to each other, with a running undertone of conversation, during the whole time of practice. This conversation is easily possible in the excitement of the game, without being overheard by the opponents, and many an overanxious player has been reassured by feeling the hand of his companion upon his waist, and hearing his voice by his side. Such a player takes the ball and goes into the line with greater dash and confidence from his knowledge that he is being supported by his various interferers and pushers, who are close at hand. He has heard their voices and felt their touch, and he knows they are there. It is often this assurance of mutual support, this confidence in the supporting players, which carries a runner through the line for a good gain.

For the many details which the coach should emphasize while developing the team play of the eleven, reference should be made to other chapters.

Rousing the Right Spirit. One detail of the coaching still remains to be done. The proper spirit must be infused into the team. It is difficult to lay down any precise line by which this should be accomplished, nor is it necessary; for the knowledge of his players which the coach possesses, or will possess at this stage of the season, will suggest to his mind which one of various methods he may employ. The men should in these last few days before their final game be kept apart as much as possible from their more or less excited associates. The team should eat together ; so far as possible they should live together. They should become excellently well acquainted with each other.

It will also be found wise to take the team to some extent into the confidence of the coach and captain, but not too unreservedly if you wish to win. Let them understand clearly all the various preparations which have been made for the ordering of the game; let them understand the authority which is to be exercised upon the field, and who is to exercise it. Tell them clearly all the arrangements for the delegation of that authority in the event of injury or disqualification. Explain any possibly cloudy points in the rules; as each point is elaborated, give the reason for that point. For example, if instructing the team to return the kick-off, without attempting to rush the ball, explain why this course has been adopted. This should not be delayed until the day of the game.

The Last Appeals. A very good time to have a quiet talk with the men, and endeavor to give them a realizing sense of the importance of the issue, is on the evening of the day before an important game. In a quiet meeting, without any attempt to transact exciting business, go over calmly the probable events of the morrow. So far as possible make it perfectly evident to the team that the question of victory or defeat lies entirely in their hands. Tell them that their best efforts are reasonably sure to result in victory. Picture to them exactly what defeat must inevitably mean. Give them a realizing sense of the important fact that the game cannot be played over again, but that the defeat must be final, and will stand as a record for all time to come.

# GENERAL COACHING PLAN FOR THE SEASON. 

Period.

First week.

Second week.

Third week.

Fourth week.

Fifth week.

Sixth week.

Seventh week.
Seventh week.
Work on the Field.

Quicken play slightly; bring the quarter out into the interference with the guard. Work them into the proper lines with the runner. Less confusion should be noticeable.
Begin to time the plays more closely. Still on the simpler forms of interference, but bringing the end in and drawing more men into the plays. Kicking game.

Starting upon the more complicated plays. Making them safer. Quarter-back and trick kicks introduced. (Watch for and resist strongly the great tendency to retrograde on work already learned.)
Having no man by himself when he comes down with the ball. Pushing and dragging. Getting the interference faster. Hurrying the runner. Practise trick plays.
Testing plays for elimination. Reception of kick-off and kick-out with interference for run in on kick-off. Kick-out and punt-out. Practising sequences without signal. Fast play and long day.
Smoothing out the plays. Continuekickoff and kick-out Trick plays gone over carefully and marle safe.

Evening Conferences.

Rules and interpretation. (Attendance not obligatory except for coaches.)

Coaching:what it means; the need of attention to it. (Attendance required for short talks only.)

Theories of Interference: where slow and where fast; speed and timing of it; keeping it off the runner. How holes in line should open.

Relationships between the positions, and theory of team defense.

Field tactics: especial discussions with quarter and field captain. Learn final signals.

Objections to plays. Get a thorough open discussion of them. Spirit and dash. Review of field tactics.

Comparison with opponents, and need of every moment. Final warnings.

So far as possible, make the appeals to the men, not only from one standpoint, but from several standpoints. Remember that the players are different in their nature and character, and that what will appeal to one man will not appeal to another. Some of the men may be moved by love for their school or college; others will be moved more by the vision of the disastrous results of defeat; others may be moved by the suggestion, skillfully made, of what victory will mean to the team if they win. This last appeal is nearly always a wise one to make to the average team. It is a fitting accompaniment to the portrayal of the significance of defeat. After showing the players the unfortunate side, by all means let them see the glory into which this misfortune can be converted by their united efforts. Instill into their minds the conviction that there are certain critical times in every game when a spurt must be made, when redoubled energy must be put into the play, and assure them that it is always possible to do this.

Without going further into the character of these last appeals, and the various arguments which may be skillfully presented with the methods by which the proper spirit may be inculcated in the players, let us once more emphasize the necessity of not leaving this part of the work to be done wholly in the few moments before the game. The last appeals which are always made at such a time are rather in the nature of a reminder of all that has been said before, and a final, stinging incentive to play the first five minutes of the game with a realization of their especial value. It is too late, in these last appeals, to expect to reach the thoughtful or deliberative mind. That must be done earlier, or not at all.

For more complete suggestions, and a fuller analysis of this part of the work, the reader is referred to chapters VI., VII., and VIII. of this part.

## CHAPTER II

## ACCESSORIES OF COACHING

Utilizing Outside Friends as Coaches. It often happens that the development of a football team must be effected with only one coach. It rarely happens, however, that outside the players themselves there are not a great many interested individuals who are ready and willing to coöperate in the development of the team, and who would gladly attend the various practices and assist the work by any means in their power.

Whom to Select. The object of this chapter is to explain to the coach the various methods by which he can utilize the services of these interested outsiders, who have not themselves the ability or knowledge to take a coach's part in the coaching. It is safe to say that the services of two such persons can be constantly employed. In making the selection, care should be taken to secure those who will be faithful in their attendance, and who can be relied upon to execute the work intrusted to them with the least interference with the work on the field.

How to Employ Them. The work on which these two assistants will be employed is in the nature of keeping records or "tabs" upon the individual work of the men ; and these records, extended over the entire season, form a mass of testimony from which very valuable conclusions may often be drawn. These assistants should keep entirely out of the immediate field of operations; following the team at a distance near enough to have a clear observation of everything which transpires, but far enough away not to hamper the work of the players or the coach. The result of their observations for the afternoon, carefully written out, should be turned in to the coach each day; and it will be well for
the coach to see that he has them immediately at the close of the practice, when his own impressions and these actual results can best be compared. As has been previously stated, there are various chamels in which this work may be pursued. We will take them up in their order.
(1) Who Brings Down the Runner? Let the coach delegate one of these outside assistants to make a careful note of the name of the player who brings down the runner in every attempt of the opponents to advance the ball. Where such an attempt is made by a mass play in the centre, and the mevement is checked by the piling up of the interference in a confused heap, it will often be impossible to designate any one man and credit him with stopping the play. In all such cases of doubt, let the record be merely entered as "scrimmage." It will also happen, in some cases, that the credit of bringing down the runner may fairly be shared between two different men, one man temporarily checking the runner, while some follower, taking advantage of this momentary check, tackles and holds him. In such cases, where the credit belongs clearly to both men, their names should be entered together, and in reckoning up the total of the day, they should each be credited with one half a tackle, or a whole tackle, as the coach may prefer. The instructions given to the assistants should cover this point, as it will save a long explanation at some future critical time on the field.

Tabulated Report. At the close of the afternoon practice the results thus gained should be hastily tabulated, and when given to the coach they will appear in something like this form : -

| Jones . . . . . . . . . | 17 | tackles. |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Smith . . . . . . . . . . | 14 | $"$ |  |  |  |
| Brown . . . . . . . . . . | 13 | $"$ |  |  |  |
| Robinson | . | . | . | . | 7 |
| Etc., etc., etc. |  |  |  |  |  |

A very little practice of this sort will make it possible for an assistant, later, to render more important services to the team, by making this same record in each game, even although his presence upon the field may not be permissible
beyond the limit of the side lines. Proficiency will come with the daily practice, and he will be able to record his data from a longer range of observation.

Other Information. The coach will find, moreover, that as the season advances he can often gain from these assistants some very valuable information in regard to the method by which various forms of plays are stopped. This information will be of material value. For example, the coach will find it of profit to be informed by this assistant that a great many plays, directed at a certain point in the line, are stopped by a certain man. Some very significant pointers will undoubtedly be obtained from these records; it may be found that one man (the quarter-back, for example) is actually tackling the runner twice as often as any other man on the field.

The record of "missed tackles," which can very well be kept in this same connection, will also be full of interesting information, and will serve as useful corroborative testimony, indorsing, or perhaps upsetting the opinions formed by the coach from his hasty and necessarily divided attention.
(2) Gains Each Time of Each Play. Here is another set of records, the nature of which is sufficiently explained by this brief description of them. The object is to show the relative value of the different plays which the team is employing.

The keeping of this record is somewhat more difficult than the records last described, but it is not in any way work which cannot be successfully performed by outside assistants. The best method of keeping it is to number or letter each play, and commit this set of numbers or letters so completely to memory that it will be possible to immediately note down a play by a single character. The number of yards gained or lost should then be entered beside the play. Another form in which this record may be kept will be by the means of long columns, each column reserved for one particular form of play, and the columus lettered over the top with the names of the plays. The objection to this method is that it does not furnish to the coach the further data, which is quite as desirable, as to the order in which the
plays were given. By keeping these records in the first-meutioned way, a double service is really performed, for beside noting the gain or loss by each play, the ordering of every afternoon's practice by the quarter-back is also made a matter of record.

These records may also, with comparative ease, be made in every game, even at the distance of the side lines. They must necessarily be frequently inaccurate when kept from such a long range of observation, but the results are sufficiently valuable to make the keeping of them in each game well worth the small labor involved.
(3) Where Gains are Made Through Your Line. This class of records will be just the reverse of the class mentioned in the previous section, and their object will be to show the weak points in the defensive play of different men, with a view to correcting their weakness by special instructions during later practice, or off the field. This record of gains may be sometimes joined with the second set of records, and both kept by one man ; but it is better to have them kept separately, if the presence of an extra man can be commanded. In the absence of an assistant upon any afternoon, the double records may, however, be undertaken by any one who has attained a fair degree of proficiency in record keeping.
(4) Timing Passes and Punts. This should be done with a stop watch, and the information obtained can be utilized by the coach to good advantage. The fact that only two men (quarter and full back) are practically engaged in this particular play makes it easily possible to locate any tardiness or slowness on their part, and the best record of speed which they are able to attain in practice should be rigidly held up as the standard, below which they must never fall in a game.
(5) Photographs of Plays. This is an accessory of coaching which has at times been employed with excellent results, but the conditions are often of such a nature that the method is of little value. It goes without saying that some one must be found expert in the use of the small camera. The views taken must be instantaneous exposures, and it will
be found that frequently the most desired exposure is impossible through the inability of the operator to be present at the exact spot from which the exposure can best be made. Practice taking place in the afternoon, the exposures must, of course, all be made away from the sun, and this further limits the efficacy of the method as an accessory in the work. On the other hand, while frequently impossible, and oftentimes of little value compared with the labor it involves, the results, when they are obtained, are of the highest importance.

If this method is undertaken it will be found best to make arrangements for the developing and printing of the films as quickly as possible after the practice is concluded, for the pictures will have an added value if the occurrence can be easily recalled, and a play accurately located, with all the details verified.
(6) How many Ways a Man has of Blocking. This is an accessory of coaching not connected with the keeping of records, and one which cannot possibly be left in the hands of any unskilled assistant. It is rather offered as a suggestion to the coach, of a way in which he may profitably utilize some evening when, assembling the line men about him, he may draw out from them all the information they may be able to give him under this head, and discover, as a result of the evening's talk, how much fertility of invention the players have, and how much they are reasoning and working out their own problems without his assistance. Suggestions from him should, of course, conclude the evening's talk.
(7) Notes on Defense and Offense Made by Each Man in Each Play. In the earlier part of the season, when the men are not being worked to an extent which deprives them of leisure time, it is an excellent plan, after some particular game, to ask the players to write off and hand in to the coach on the following day a short report on the results which they noticed in the game, in regard to some particular play, which may be a part of the offensive game. Just what they should write in these reports may be briefly indicated under three heads : -
(1) What difficulty, if any, did you have in doing the work which you were instructed to perform?
(2) Was the complete success of the play prevented by any man whom you were told to obstruct?
(3) What suggestions, if any, can you make whereby the play may be improved?

In any game, after some play which seems to be especially strong has been put against a team, it is often possible, by calling for reports from the various players who were opposed to the play, to get valuable information for the defensive coaching. It will be found, as a general rule, that the writing of a report upon any one of the offensive plays of the team sharpens the wits of the player, and gives him a better insight into his particular duties in the play, and the relation of those duties to the success of the movement.
(8) The Tackling Dummy. This is such a well-known accessory of coaching that only a word need here be given to the coach regarding it. While necessarily a part of the foundation work of the earlier days of the season, it will often be found necessary to revert to the dummy work whenever the tackling of the team retrogrades, and there is reason to believe that the players are losing a little of their skill in this direction.

It must not be forgotten that tackling the dummy is individual work, and may be done by the men at any time during the day, outside of the practice hours. It is also work of such a nature as may be prescribed for certain members of the team, while others may, very properly, be exempted from it by reason of more important work in other directions.
(9) Quarter-Back Examinations. It is absolutely essential that the quarter-back should have instruction in the generalship of the game. The most important part of his position is the ordering of the plays. Where this work is intrusted to his charge he must study the whole question of field tactics and football generalship. No book will successfully impart all the necessary information, for this information must be adjusted to, and tempered by, the peculiar characteristics of the team itself.

The instruction must be given the quarter-back by the coach or captain in conversations, from time to time, and when a certain amount of this instruction has been given to the quarter-back, it will be a good plan, on some disengaged evening, to give him a half-hour examination, covering various points which may arise, and on which, in the game, he must pass an almost instantaneous judgment.

It will be well to have two or three of these quarter-back examinations during the latter part of the season. In the first one, and perhaps in the second one, the quarter-back may be given all the time necessary to write out his answer to each question, but in the last examination it is imperative that he should be required to give his answer instantly, since all his decisions upon the field must be made in this manner. The experience of the coach or captain will suggest many questions for a quarter-back examination, but as a possible guide the following may be suggested for the first examination : -

1. Ball on your own eight-yard line; first down; what will you do?
2. Ball on opponents' thirty-five-yard line; third down; two yards to gain ; what will you do?
3. Ball on your own fifteen-yard line ; second down; six yards to gain; what will you do?
4. Ball in centre of field; second down; ten yards to gain ; what will you do ?
5. Ball on your own twenty-five-yard line; third down; one yard to gain ; what will you do?
6. Ball on opponents' twenty-four-yard line ; first down ; what will you do?
7. Ball on your own twenty-yard line ; third down; half a yard to gain; what will you do ?
8. Ball on opponents' thirty-yard line ; third down ; four yards to gain; what will you do ?
9. Ball on your own thirty-five-yard line; first down ; score six to four in your favor; seven minutes more to play to end the second half ; no wind ; what will you do?
10. What do you consider the value of ball at opening of first half, in yards ?
11. What do you regard as most important to know, the weak spot in opponents' line, or the value of your different plays?
12. If you are able to arrange to send off one play on a quick line-mp, starting it without signal, would you send it round the end, or through the centre, or at the tackles?
13. If you win the toss, and take a strong wind, are there any conditions which would operate to induce you to kick regularly at first down? If so, what?
14. Within what extreme distance from your own goal should you deem it expedient to sacrifice all attempts at rushing the ball and kick on first down?
15. If your first down failed to gain, at what distance from your goal should you deem it unwise to defer kicking until the third down?
16. A long run lands ball on opponents' eight-yard line, in touch; if all your plays were equally strong, how far would you bring ball in, and what would you play?
17. If you unexpectedly lost twenty yards, then fifteen yards, and so found yourself suddenly on your own fif-teen-yard line, with the team somewhat rattled by the rapidity of these movements, does it occur to you that anything beside talking could be done by you to pull your men together? If so, what?
18. The score is four to nothing against you. You are within one minute of the close of the second half; the ball is in your possession on the opponents' forty-yard line; the first down has resulted in no gain; what will you order for the second down?
(10) Locating Men at the Hole in the Line to show where Runner is to go, and Practise Making Opening. A great deal of the practice of any team toward the close of the season is that which is generally known by the title of "running through signals." Where this signal work is done upon the field, it is usually conducted in a more systematic and thorough manner than when in the gymnasium in the evening. In the latter case the practice is mainly for instant recalling of the meaning of the signal itself, but signal practice on the field is usually unclertaken for a different
end. It is then intended by such practice to subserve the more important work of "shapening up" the plays, getting the different members accustomed to their positions, uniting the interferences quickly and correctly, and generally combining precision with speed in all offensive movements.

It is at such times that it is an excellent plan to locate men as supposed opponents (say two line men and one at the part of the line where the hole is to be made, back) and call upon your forwards to actually make the hole in every case. Of course the opponents are required to move from point to point in the line as the signal is called, and they, of course, know exactly where the play is to be. It is not required of them that they will stop the play, but that they will make such a demonstration (resembling the probable efforts of the opponents) as will give your own forwards practice in opening up a hole, and to reveal to your runner exactly where the opening is likely to be in the line.

Every coach realizes that a good game is often lost by the runner repeatedly striking the line a little to one or the other side of the exact spot where he ought to have pierced the line, and this error in locating the exact spot of opening will, unless it is corrected, continue through the entire season. Thus the results of a particular play may be very unsatisfactory, and the play itself may be subjected to much condemnation, when the whole difficulty lies merely in the runner not realizing that his hole lies a little farther out than the spot where he usually strikes the line.

It will be interesting to the coach who has not before made such an observation to notice how constantly a runner moves over exactly the same track in a particular play, and we have, in our experience, seen many cases in which the whole character of the play, so far as its results were concerned, was materially changed by the help which a coach has received from this simple accessory to his work.

Of course, the men who are acting as opponents need never throw the runner to the ground. It is enough that they simply tackle him. The runner, in this method of practice, should go a trifle farther than merely through the line, in
order to be sure that he is not going to be stopped from behind by one of the opponents turning and overtaking him.
(11) General Examinations on Rules. This, although a very simple thing, is quite a necessary adjunct to the regular coaching upon the field. Frequent talks with the players would accomplish the same end as a set examination, but inasmuch as whatever is worth doing is worth doing well, and since conversations, which can always be indulged in, are usually rarely indulged in, it is well to have these examinations rather more frequently, and devote to them a specially appointed time. Members of the team should be supplied with pencil and paper, and they should be called upon to answer in writing from half a dozen to ten questions covering the various points in the rules. One or two of these examinations, if the questions are carefully prepared, will show whether any further work along this line is needed.
(12) Signal Rehearsals. It is to be assumed that every coach will insist upon a certain amount of signal rehearsing, at odd times, especially toward the close of the season, and immediately before important games. All the various plays have then been properly inventoried and filed away in the quarter-back's mind. It is for the coach to make sure that the team so thoroughly knows the various movements that no amount of confusion, excitement, or noise upon the field can so far distract their attention, that the mental process of instantly determining what play has been called for shall not go on without hindrance or accident. Signals must be so continually rehearsed by the team that the calling of any signal is almost like the actual explanation by the quarterback of the play which he wishes to have made. In other words the interpretation of the meaning of the signal must be as quick as a flash.

In some of the largest college teams it is not impossible that great advantage may accrue from having a test made upon the various players, to the end of ascertaining the quickness with which each man acts upon impressions made upon his mind. The director of the psychological department of any one of the leading colleges, where the necessary apparatus is available, can fully explain to the coach the method
by which this test can be made, and provide the means of making it.

Need of Strict Officials in Late Practice. The scope of this chapter may fairly justify a few words upon the necessity of securing capable and strict officials during the last fortnight of practice. For obvious reasons, the work of the officials during the practice in the earlier part of the season is necessarily lax. It would be too much of an interruption to the work of the coach if, in the short intervals of practice, the penalties of the referee or umpire were continually enforced.

But inasmuch as this portion of the work is slighted in the early part of the season, it is quite necessary that the coach should not forget its importance in the latter part. The team, then, is playing together more continuously; in practice there are fewer interruptions, and there is practically only one coach upon the field who is handling the team. In other words, there is only one man who is stopping the play to issue directions or impart instruction. It is proper and altogether advisable that the work of the officials should, at this point, be emphasized. Let the regular penalties be imposed, and let a second penalty for the same offense be always accompanied by a severe reprimand to the offending player.

At the end of the afternoon's practice a little consultation between the officials and the coach will be wise. The officials can then give to the coach the consensus of their observations during the afternoon, and he can speak the few words to the various players in private, after the practice is over, in regard to the faults for which penalties have been inflicted. The coach should insist that the rulings of the officials in this late practice shall be of the very strictest sort. To enter an important game and find that the rulings are less strict than the players have been accustomed to is no serious obstacle to their work; but many a team has been discouraged and disheartened in the first fifteen minutes of an important game by the repeated penalizing of some player for an offense which, whether real or fancied, has the same disastrous result. By all means let this point be covered in the late practice.

## CHAPTER III

## CHOOSING THE TEAM

Secret of Success. One of the best coaches of singularly successful teams said once, in a moment of confidence, that the eventual result of the season's work depended almost entirely upon the ability to select in the first two weeks the fifteen best men in the university. He added, furthermore, that of the fifteen thus selected the chances would be that five of them had never played on a 'Varsity team before.

He followed this up with this statement: that, although no one save the coach would know who those fifteen were, it was upon them that every ounce of energy should be thereafter concentrated by the head coach or his assistants, so that the men who finally went into the game were certain, with few rare exceptions, to have had every possible advantage given them for the entire season.

This man was especially a coach of rush-line men, and never failed to produce what is technically known as a "stiff line." There is little doubt that, had he been called upon to bring out the backs, he would have been equally successful, for he has a grasp upon this fundamental fact: that a football player cannot be made in a day or a week, and that, at the pace set to-day among the first-class elevens, that team which has had all its men well coached from the first of the season to the last practice will surely pull out ahead of the team of whom only two thirds have had the full amount of proper attention. In no sport do bad habits so persistently crop out if not daily corrected, and in no sport do these mistakes seem so triffing up to mid-season, or so painfully marked in the final games. In a crew, serious faults must be handled early; a later recurrence of them in mid-season in individuals is then at once pronounced; in fact, the whole swing is so
affected that the matter is at once apparent to the eye of the practical coach. But in football there is so much more individuality that the faults may escape almost unnoticed until emphasized in the strain of an important match. Then it is too late to do more than regret the result.

Qualifications of a Good Man. What qualifications should a good man have? These have been rehearsed over and over again, but it is always well to hear them just once more. Courage - "sand," as the slang term has it - is the first. And by this is not meant unreasoning recklessness, nor mere toughness of nerve, but that kind of courage which, while recognizing the danger, feeling the hurt, or seeing the impending defeat, is none the less ready to face the chance, to ignore the pain, and to carry a good heart to believe that the defeat may be turned into victory. There are some men who refuse to be beaten, who come up smiling every time, but grow more and more determined after every mishap. A captain and coach can usually tell with fair judgment about the men who have played under their eyes for a season or so, but the new men and some of the old substitutes may be more of an unknown quantity.

Diagnosing. A good coach can be of the greatest service in the first day or two in diagnosing this quality of courage, and the more good men who watch the team during the first week, the better. Then, at a meeting of the advisers held at the end of the first week, the characters of the candidates should receive a very thorough sifting upon this cardinal point. It is well to become possessed of the earlier history of any of these men, where that is possible, because from this much can be determined. The old saying, "Blood will tell," is true here as in other football characteristics. Such names as the Traffords, the Riggs, the Poes, and the Blisses come at once to one's memory as examples. To-day many of our players come from preparatory schools, where their records are easily obtainable. So far as the skill of their playing is concerned, these records are not, perhaps, of great value, since the conditions are very different from those of 'Varsity work, but upon this one point of courage, the boy will have shown at the "prep" school what his rating ought
to be in that respect. It may seem like taking infinite trouble to look up all this matter, but taking pains often proves the turning-point in the scales when the final day comes; and surely it is wisdom to expend the coaching upon men who, when they learn to play, will play their hearts out rather than quit, instead of wasting months upon a nan who funks at the critical moment. Some men are born cowards, and cannot face grief; such men may prove showy players in practice when facing men they know, but in a game against strangers, when every play is in deadly earnest, may lose their nerve completely.

Inventiveness a Necessity. The next most important qualification of the player, and one that must be looked for in the early days of practice, is inventiveness or adaptability to changing circumstances. This is especially true of forwards. A man who, during the first week, is continually fooled by the same stratagem, a man who always blocks in just one way, and who goes through with such unvarying regularity of method that the opponents know exactly what he is going to do, and at what point in the line to expect him each time, is wanting in a characteristic that the successful rusher must naturally possess. Men may be coached to perform their work in a variety of ways, but, unless they possess some inventiveness of their own, they will never rise above the mediocre. It is a study in itself to watch the line men during the first week of a season. Two thirds of them go about their work in a set way, push hard, grunt, and struggle, but accomplish little. Here and there, however, stands out one who becomes a veritable terror to his opponents, who is always doing something new - something almost untraditional in the limited view of his fellows. He does n't always run straight into his opponent and try to push him over. He tries strange jumps, he is abnormally quiet for a moment, but, just as his vis-a-vis is drawing a long sigh of relief, his erratic friend has bumped him unexpectedly, and goes clean through at the runner. "Who let that man through?" groans out the captain, and the offender hangs his head,

Strength and Ability. After these two points, strength and ability should be noted. The former is easily discover-
able in line men from the way they hold themselves after some minutes of hard work. The strong man is as able to assume a stooping position, after ten minutes of hard work, as at the start, while the man who is weak will be straightening up to rest himself sometimes, even almost at the moment when the ball is put in play. The man who has good legs will be pushing with them every time, while the man whose legs are a bit shaky will be manifestly sparing himself. The man with the good back will be tossing his weaker opponent as the play goes on.

Agility. As to agility, the tests for this are less marked, because, while a line man ought always to be exerting his strength at every down, there are times when not to move quickly is an advantage, and so, although able to do this, he will simply block "solid," and be almost stationary in his tracks. Continued watching will soon convince the coach, however, whether the man is using judgment in this respect or is only naturally slow and ponderous. (From all this talk of line men the ends are to be excepted. They class rather with the half-backs, and a different set of tests should be applied to their work.) The rushers should also be watched separately for their blocking and breaking through.

How to Watch a Team. An excellent way of passing judgment upon these points is to stand in line with the rush line on every down and begin by watching the men who come through. Note which man comes through most quickly and reaches the farthest point before the runner strikes him or the line. Then reverse the observation and see which man is generally blocked. Then take up the blocking and see whose man comes through most quickly and whose man is effectively blocked. Two men should watch these points and take notes throughout two or three days, and then summarize these notes. After these questions of strength and agility comes the one of ability to learn. In the first week every man should receive some (even if only a little) coaching; not so much for the good it will do him as to see how much of it he can digest and make use of. It is folly to take up a man who shows in the first week that he cannot learn. Some men are slow, but not stupid. Such men may not
readily adapt themselves, but let them once grasp a point and they never forget it. It is better to have such a man than the stupid one who forgets what he has been told as soon as he is left alone. Later in the season the coaches have no time to waste in begimning over with the men.

Judging Men Behind the Line. In passing judgment upon men behind the line the problems are not so simple, but for all that there is seldom any candidate who cannot be fairly gauged in a week or ten days. In the first place, a quarter-back is even more liable to expose his lack of muscular strength than the line men, if one watches his position in getting the ball. Here the strength of back and legs count greatly. It is a rather remarkable fact that candidates for quarter almost invariably possess plenty of "sand." Probably it is because, if they did n't, every one - even the casual spectator - would discover it in a half hour. Agility they are also likely to possess. But strength and inventiveness and adaptability are not so common, and are the features of their play, therefore, to be especially watched. Observe whether the quarter knows what to do when his line is weak, and whether he can extricate himself from the annoyances of having a guard shoved over upon him or another reaching him through some break in the line. Note if he can help hold a line after the ball is passed when such a thing is rendered necessary by the rapid breaking through of a strong centre or guard. See if he can change his pass when its speed or slowness bothers the recipient.

Shiftiness in Backs. In the backs we must look for courage, strength, and something that perhaps had best be called "shiftiness," that is, the ability to act under suddenly altered conditions, - to decide on the instant, and to follow the decision immediately with the action. The things that will indicate these points may be grouped as follows. Under strength, note the ability to keep the feet, the play of the body and shoulders in throwing off men, and the strength of back in forcing ahead when tackled and falling always forward. "Sand" can readily be seen in the way a man takes his opening and his willingness to take it again even if the hole was a poor one. Shiftiness is distinguishable in back-
ing up fumbles, in dodging after getting through clean, and in finding his interferers, even though they run wild all over the field. While it may happen that a good man may not be sure of his catch in the early part of the season, it is a pretty sound rule that if a back or half-back cannot get squarely under a ball in the first days of practice, he will make but an indifferent catcher always. It may be that his judgment of distance is at fault, and in that case it will be a hard matter to conquer. On the other hand, a man who gets squarely under the ball and allows it to bound from his arms can usually be made a sure catcher later. This is worth remembering in the early judgment of players.

General Observations of First Week. There are a few other general observations which should be made in the first week in order to determine upon the fifteen or twenty men who should have special attention. First among these is the question as to liability to injury. Here, again, previous records should be consulted. A strange instance of the value of this was exhibited in the case of two brothers, both excellent general athletes, who were candidates for a football team in one of the universities. The elder brother made the team his first year and played during the season, but in the final game received a slight fracture of the clavicle. The younger brother fractured a clavicle early in the season. Both were exceptionally plucky fellows - the former, after the accident, actually playing out the game, as his injury was not diagnosed until after the match was over. The next year the younger brother was almost outstripping the elder, and was certain of a place, when a week before the final match he fractured the other clavicle by a fall upon his shoulder. There is little question but that both boys were peculiarly liable to this injury, for, while otherwise very strongly built, the clavicle in each was not as strong proportionately as the muscular development would have led one to expect. In none of the three cases of injury was the fall or blow a severe one. There was no other tendency to injury noticeable in either of the boys.

Fragile Men Dangerous to Rely Upon. But to return. Some players, while not apparently fragile, are in some unac-
countable way awkward in taking falls, or the ligaments about the joints are not sufficiently tense, or for some unknown reason they are continually on the cripple list. Such men are dangerous to depend upon, and if selected it should be owing to the fact that their play is very much above the average - sufficiently so to run the risk. Another point to be noted here is the effect of the early work. If a man, outside of an incapacitating injury, stands the work of the first week well, is on hand every day, and is markedly eager to be playing, it is an indication that his general condition and his muscular system are both good. The reverse of this is, however, not always to be reckoned upon as true, for a man may be a promising candidate, and yet stand the first few days badly. The light-weight candidates should be weighed after the first day's practice, and again at the end of a week. A man who, already light, goes off rapialy, is pretty sure to prove a highly strung player, with a decided tendency to overtraining, and, if he be selected, especial attention should be paid to this danger.

Love of the Game a Good Quality. Another thing worth noting is the enjoyment of the sport as a game. Old players may not exhibit this, but a new player who is likely to become a good man likes to have his side win, or make good ground, even in practice, and when he gets near a goal he plays with more dash and abandon, and is a fighter for every inch. Such spirit should not be overlooked, for oftentimes it happens that a team of old players are woefully lacking in that regard, and many a final game is lost because there is not enough of this kind of spirit in the eleven to carry it over the tight spots where experience and skill fail to make the necessary distance.

Making Up the List. Having passed the first week or ten days, and having carefully considered all these points, the coach should make up his list of fifteen or twenty players, and, while not giving out who they are, he should see to it that each one of them has especial coaching continually that not a day goes by when any of these men passes an afternoon on the field without careful attention from himself or from one of his coaching staff. Of course this does not
mean a neglect of the other candidates. He will need many more before his season is completed, but let him never lose sight of one of these first-choice men until that man is laid by for good. About mid-season it is time for him to take another inventory of his stock. He should then, with the added light he has gained, be able to make a selection of fifteen or twenty, which will include some new material, perhaps through the dropping out of some of his first list. About three weeks before the final game he can determine the ones to take into the great match. There is much divergence of opinion as to whether the men should be told directly. Generally it is sufficient indication to play them together as much as possible, and it avoids the difficulty of overconfidence of some and discouragement of others, to have it understood that the team will not be finally selected until the last moment. That, however, is no reason for not playing the pick of the men regularly. Good discipline sometimes requires a change upon the field during practice if a first eleven man is playing poorly and his opponent unusually well.

Final Selection. Coming now to the question of final selection. In another chapter we have treated of the points to be considered on the eve of the battle, but this selection is supposed to be prior to that. The cardinal principle to be observed is that of elimination. Take no man into the game who is slow for his position. This question is usually as to ends and halves. An end may be a wonder in all other points, but, if he lack speed, there may come a time when he is circled and then he cannot overtake his man. The same is true of the halves. It does not require a ten second man for an end or a half; but it does need a man who can overtake any ordinary runner who has the ball. Don't take any man in who cannot control his temper. He will fail you at the critical moment by not obeying orders. A writer upon cycling themes says regarding tandem riding: "Do not take any novice out on a tandem unless he understands the Yale football principle of not trying to run the machine." A man who loses his temper will try to run the machine when it means a smash-up surely. Do not take any
man in who, aside from injuries either old or prospective, is not physically good to last out the two halves. You may want to use him the most when he has "bellows to mend." No matter what it costs in the way of the loss of otherwise good men, take but two men in back of the line who are not dead sure catchers. Of the four, two must be absolutely certain, so far as you are able to judge, of holding a fly. Do not take a centre in who is erratic in his snapping, nor a quarter who cannot hold the ball when the opponents are through. Finally, take no man in at any position who is not thoroughly unselfish in bis play, who has any thought of grand-stand work. If you do he will lose you a touch-down by trying to pick up the ball when he ought to fall on it.

## CHAPTER IV

## THE POLICY FOR THE SEASON

What a Policy should Mean. The ability to direct an intelligent and consistent policy during an entire season is one of the most important qualities of the successful coach.

As in a business requiring a broad grasp of the constantly changing situation, success can only be attained through the vigorous and fearless yet prudent course of the manager or head, so in the case of a team, the coach must be mentally a strong enough man to keep a firm hold of his lines, and direct all men and acts towards his one preconceived end. A vacillating policy will wreck the strongest team, even more certainly than an ill-judged one, because, in the case of the latter, with the abundance of material usually at hand, and the infinite variety of tactics possible, a policy firmly adhered to will, nine times out of ten, bring forth, not perhaps a brilliant, yet a rugged and determined team. On the other hand, a vacillating, constantly altering plan of campaign produces a team that has neither knowledge nor confidence, and one that is as good as beaten before the kick-off.

Self-Reliance of Coach. A coach cannot always, in the matter of policy, depend upon his assistants. He must stand alone in many respects. He cannot trust his advisers, because there are usually several of them whose backbones are of the jellyfish order, and who cannot endure criticism. Such men should certainly not be informed regarding the full intent of the head coach at critical times, because they will hamper, rather than assist his actions. A coach may, after a careful study of the situation, decide that he must, in order to attain satisfactory results, overthrow many of the
methods formerly in force, upset many, perhaps, of the most honored traditions, and likely enough drop off one or two of the most revered players. It is seldom the part of wisdom to do all this at once. Such a step might end in so great a difference of opinion as to split up the team and the university into factions, and so the season would prove a failure. It is the duty of the coach to accomplish his end with discretion; he should understand thoroughly what he has in view, and his reasons for it, and then quietly proceed to bring about the result. When accomplished, it will frequently meet with the full approval of even those whom it has robbed of an opportunity to take active parts.

Spare Weak-Kneed Friends. The fact that we use this rather extreme illustration need not alarm the intending coach. The situation is seldom as serious as this. But it is well for him to keep his own counsel as to questions of policy that are likely to be too heavy for weak-kneed friends to carry even in their minds, while he may freely discuss any minor point, the settlement of which requires only ordinary judgment and football experience. Furthermore, there is an open part of his counsel and direction that is very important, and that should be thoroughly understood and carried out by every member of his coaching staff, and by his captain. This has been, by general acceptance, designated as the policy of the season.

General Lay-Out of Coaching Lines. Under this head comes first: The laying out of coaching lines. Here he must make himself familiar, if he be not already so, with the distinguishing abilities of every man whom he can secure as an assistant. The trainer and medical adviser are two people of great importance to him. He must determine where their duties are likely to clash, and settle at the outset the question of precedence. It is hardly necessary to state that the medical adviser's word should be paramount in all cases requiring expert knowledge, while it is probable that the trainer can supplement the regular practitioner's skill by various ingenious devices for hastening the recovery in minor sprains and bruises. The physician, for instance, especially if he has had little practical experience with football men,
will usually err on the safe side of recommending rest. Rest is probably the surest cure, but the man may be wanted. Then the physician should be willing to concede a point and coöperate with the trainer in hastening a partial state of recovery sufficient to make it possible to use the man, provided, of course, no serious results are likely to follow. There ought never to be, under a judicious coach, any trouble in reconciling the opinions of the two, and making the most of the services of both.

Coaches for Specialties. Among his other coaches he will find that he has men who are capital teachers of some one or two points, but who are, unfortunately, firmly of the opinion that they know all about the various other departments of the play. He must judiciously apportion the duties so that each man may perform those for which he is especially fitted. He ought to be able to secure three line coaches at least, - one for the centre and guards, one for the tackles, and one for the ends. He should also have two men for the backs, one of whom should be able to coach the quarter and the general running game, while the other should be a kicking coach.

Size of Staff. A staff of five men is by no means a large one, and is usually supplemented by several others. In that case there can advantageously be a division of duties as follows: One man shall be responsible for the defensive work of the team; another for the offensive. If further division is practicable, it may be almost infinitely multiplied along the lines of blocking, interfering, getting through, tackling, and the like. If the staff be small, the men may be handled in some such way as this: with three men, let one look after the individual work of the line, including the tackling, blocking, and getting through; let another look after the backs, the interferers, and offensive tactics ; and let the third attend solely to the defense.

Each Day Lay Out Work for Following Day. The coach should, with his advisers, lay out each day the work that is to be performed upon the following day, so that there may be no wasted time on the field, and no discussion of plans there. The schedule should be arranged the evening
before, and each man of the coaching staff should know exactly what is expected of him. In the early part of the season this is simple enough, but it becomes more complicated as the weeks go by, and when the time comes for the development of special team play, and the exploitation of intricate plays, it requires all the time the coach can put on it merely to lay out the work for his staff.

Discipline. Secondly comes discipline. Discipline should receive the very earliest consideration. If there be not an established tradition strong enough to absolutely prevent anything like "talking back" to the coaches, such a rule should be put in effect, and with sufficient severity to kill once for all any such tendency. It may be necessary to make an example by summarily dropping one such offender, in order to insure instant and unquestioning obedience. A man should not be permitted even to make excuses. If he has anything to say, it should be said to the coach in private off the field, and any inquiries that partake of even the appearance of questioning a coach's decision should be asked when off, rather than on the field.

Extension and Scope. The discipline should extend much farther than this. It should insure the prompt appearance on the field daily of every candidate properly dressed. If there be any reason why the man should not play, he should so inform the coach the evening before, or if that be rendered impossible for any reason, he should - even if the reason be illness or accident - be on the field in uniform, and thus convince the coach of his good intentions by his presence until excused. There is no greater element of danger than that found in a team where a man can stay away or wait until the time comes for play, without putting the coach in full possession of the reasons for his delinquency. And habitual tardiness at practice is equally bad.

A team should also be required from the very earliest days to line up instantly on the call of the coach, and always to take their positions on the run after a try-at-goal, a touchback, a safety, or any call of time. The men should be so educated and disciplined that it becomes second nature to them to get in position on the jump, and to be alert and
active every moment while the line-up lasts. After the first two weeks the play must always be fast. It is better on this account not to stop the play for trivial faults, but to coach while the play is going on, or make such notes as will render it possible to coach the individual between the calls of play, or after the practice ends. To be continually waiting for coaching spoils a team in many ways other than that of slowing up their game. It makes them dependent and lacking in decisiveness of play. They constantly show a hesitancy of execution even after they are lined up and ready to begin.

Period of Progress. And this leads us to the subject, thirdly, of the development of the team, and how a wise policy should carefully map out the various periods of progress and see that the team is kept up to these lines. For fast play a team should be tested occasionally by the dropping of all coaching and the keeping up of a steady drive for five minutes. This will break them up a bit, if tried when the practice is only two weeks advanced, but at four weeks it ought not to affect the accuracy of their play in the least. Allowance must always be made, however, in case there is a new man on the team, or if there exists any other reason for inaccuracy aside from the mere speed of the play.

Tackling, Blocking, and Breaking Through. As to tackling, there should be no high tackling noticeable after the third week, and a case of really bad play in this respect should be made an occasion for something more than passing mention. It will be well to make an example of such a case for the good of the team.

In blocking and breaking through, as the second eleven improves equally, the apparent progress is slow, and it may not be until well into November that the first eleven will show a steady and constant superiority in this respect. During the first week or ten days they are noticeably in advance of the second eleven, but this is followed by a period when the two teams become fairly well matched, perhaps on account of the greater effort exhibited at this stage by the second eleven men. After a time, however,
the first should once more show their advance and keep it up until the end.

Relation of Defensive to Offensive at Different Periods. Defensive play should be outstripped by the offensive play for the first two or three weeks. Then the defensive should become the better of the two, followed again by an advance of the offensive when the final plays are adopted and perfected. We mention these peculiarities of improvement and apparent retrograding, in order that the coach may not take them too seriously when they arrive. There is a good reason behind each advance or retreat of this nature, and it is not one which need cause any alarm.

Indeed, this state of affairs is by no means remarkable when one considers the conditions. Take the case just cited as an illustration. During the first part of the season there is much more enthusiasm put into the offensive play; each man is then trying to make a record for himself, and naturally feels that there is much more chance for display in the offensive than defensive part of the work. Then coaching begins to tell, and by mid-season the defense has been so built up and strengthened that that part of the play is strongly accented. And then, finally, comes the perfection of team attack, which crushes the defense down by sheer systematic pressure and makes way over or through the defenders.

Mid-Season Period of Depression. In commenting upon the policy for a season one ought not to omit to warn the coach against a certain period which seems to come at some time in the season, usually about November first, when the team seems "going to the dogs," when the whole season's coaching has apparently been wasted, and when both captain and players feel that they are simply useless. There is a reason for this state of affairs, and a good reason, too. It is by no means as bad as it looks, and is brought about in a way quite easy to understand. It is really nothing to be alarmed at, so long as it does not last too many days. The situation is simply this: During the first part of the season the men have a lot of enthusiasm; the eager struggle to improve and to win a place on the

Diagram F.- Usual progress of the season.
team stirs even the most sluggish. By the end of October, however, the men are beginning to realize who have the best chances; some are even ready to rest on their already won laurels; upon others the pursuit has palled ; and altogether there is no especial stimulus left. This state of affairs usually comes before the coaching has really had a fair chance to exhibit results, and the men are, therefore, just between two stages. The first stage is that of fairly good play, as brought about by enthusiasm and life and dash; the second is the stage to which they have not yet attained, of really good play on a basis of knowledge and skill. It is not necessary to do more than tell the coach that inside of a week the men will probably be in the second stage, and his short period of despair will be at an end.

Time of Line-Ups. In determining the amount of time the line-ups should last each day, the coach must remember that it is out of the question to expect the best work from the men in two consecutive days of hard long practice. It is occasionally advisable - in fact, necessary - to give the men a "trying out," as it were, by a long practice of fully an hour. There may be some good reason why, in mid-season, this should be repeated on the following day. But if there be such a reason, there is at least no ground for a coach to expect to get good work out of the team on the second day, and his criticism and fault-finding should be judicious, and tempered by reason and mercy.

New Coaches and New Judgments. The coach should so arrange his system that he may have, about once in two weeks, the addition of one or more new coaches. One of the strongest reasons for this is that the men may have become accustomed to the voices and ways of the familiar coaches, and the effect of their criticism is, therefore, lessened. Often a new voice and new manner of coaching will stir them up to better performance. The coach should also have a man or two in reserve who does not see the team frequently, who may be a fair judge of the actual progress made, and who will often discover some fault that has crept in, unknown and unnoticed by those who are with the team every day.

Order of Games. Fourthly, in arranging the dates of the matches, especial attention should be paid to the order in which they follow each other. The best arrangement possible is a progressive one, meeting the weak teams first, and gradually working up to the strongest with an interval containing but one game, and that with a weak team, between the last hard game and final match. Where such an arrangement is impracticable, the alternation of a hard and a light game should be sought for.

Selection of Plays and Control of Score. In playing these matches the team, or rather the team through the captain and quarter, should be given a schedule of what plays are to be tried in each game, and how far to go in methods. A team should never be allowed to "play off," no matter what the reason. If it be desirable - and this is seldom the case - to keep the score down, it should be done by confining the number and variety of plays they are to attempt, and in no other way. A team once allowed to "play off" is not to be trusted, and is a good team to play against. Nor should men be put on and told to "play easy." A man may be saved by telling him what plays not to attempt, and he may also be taken absolutely out of all interference if that seem advisable. He may be put in to kick, and that only. But whatever he does must be done with all his might, and what he is told to avoid must be entirely dropped. Otherwise you retard his advancement, and will probably have him laid up into the bargain.

Practice under Umpire. All practice should be done under an umpire, who may act also as referee. From the early part of the season he should always call fouls, and his word should be as much undisputed law as it would be in a match. For the last two weeks it is well to have two different umpires, - a referee is hardly necessary, - who shall keep as close a watch as possible for every indication of holding and off-side play.

Quarrels. Should any difference of opinion arise at any time in practice or off the field between the players, consideration should be given to it at once by the head coach and the matter adjusted. It should not be permitted to
gather force. There is no greater element of success than a thorough and hearty sympathy between the players, and a coach should exercise his ingenuity to the utmost to secure this.

The same is true regarding differences among the coaches, save that in that event it may be necessary to let one of the coaches go. It is seldom so serious among the players. But with the coaches there may be a rupture of such a nature as to make such a step advisable. Harmony at all hazards must be the rule.

Personal Fxhortation. There is one thing that we have not thus far touched upon in the policy of the head coach, and that is the element of personal and private exhortation. The head coach must do some of this himself, but his assistants should also perform a great deal of missionary work, both directly and indirectly. Some players must be talked with almost daily ; some must be approached in addition through their friends and acquaintances. A man often reaches the point when he believes that the coach only talks to him from force of habit; that his play is as good as the next man's ; and he loses all respect for the criticism of the coach. It is hardly a case for discipline, but rather for personal intervention by intimate friends. Often the man is a good man, means well and all that, but he has grown careless, and his friends can show him this without offense and more forcibly even than the coach. In a word, the head coach must make use of all means to point out to the players their weaknesses, and must then see that the information as to how to reconstruct their play is conveyed in the most effective way, and often in a variety of ways.

## CHAPTER V

## TESTING THE DEVELOPMENT

The Need of Such Tests. It is quite necessary that, at various times during the season, the coach should obtain an accurate idea of the development of the team, that he may see just where he ought to apply his immediate efforts. His own observations will teach him more than anything else; but there is, inevitably, much which he will overlook, partly from inability to give attention at all points, and partly because he is of necessity so close to the work of the team from day to day that he is unable to get a correct general estimate, which those who only see the team occasionally will often readily make.

As a help to his own observations, the criticisms of these casual visitors are always to be desired; but, beyond this, it is possible for the coach himself to apply certain tests to the development of the team from week to week which will show him latent weaknesses, or give him the welcome assurance that his efforts are proving successful.

With the aim of helping the coach, we will suggest certain salient features which should be carefully watched, outlining a dozen or more different tests which may be applied to the work of the team at stated intervals during the season; tests which will reveal much regarding its development along different lines.
(1) Test of a Weak Centre. It very often happens that, in the hurry of preparation for the earlier games of the season, the groundwork and fundamentals are not thoroughly imparted to the players. In other words, the elementary coaching has not been well grounded, and serious faults may be lurking below the surface of the play. One of the most serious of these faults, which sometimes, by a
curious obstinacy, refuses to show itself until the season is well advanced (and then appears with positive malignity), is a weakness in the centre.

The first indications of this weakness are often evident to the practised observer before the coach detects its existence, by reasoning backward from their unfortunate results. For example: some play which is being tried will fail to work successfully ; the coach knows that this play has been thoroughly tested by other elevens, and worked well, and he is maturally at a loss to understand why it does not work now. Following rapidly upon his perplexity, as if to add to the troubles of the situation, other plays which the team has been working with fair success now begin to show no gains; the runner is tackled time after time, without any advances. Apparently there is no explanation of the cause of this trouble, but its real cause lies in the weakness of the centre, and the first indications of this weakness might have been noticed by the expert coach days and weeks before, by noting carefully the result of the first impact between the two opposing lines of forwards, whenever the ball was put in play, the coach standing a little beyond the end of the line, and watching the three centre men closely. From this position he ought properly to see nothing more remarkable than the immediate engagement of the centre men with their opponents, with no yielding of the line for an appreciable interval after the ball has been put in play. Strictly speaking, neither side should be driven back (unless the play is an attack upon the centre), but both lines at this point should maintain the integrity of their position, without being forced, for at least an interval of from one and a half to two seconds after the ball has been snapped. The weakness in the centre, which develops in the middle or latter part of the season, will rarely occur without having given constant indications of its existence to the coach who has noted the effect of the first impact of the three centre men with their opponents when the ball is put in play. He will see that there is - not once only, but continually repeated - a " giving way " on the part of his centre. Their retreat may be only a very slight one; they may yield so little that the successful movement of the play is not seem-
ingly embarrassed ; their yielding may, indeed, only be evidenced by the bending or half turning of their bodies toward the quarter-back, but in each case these indications point to the conclusion that the centre men should be put through an immediate and severe coaching in low, hard blocking. Unless immediate attention is given to these instructions, the later results will be disastrous.
(2) Following the Ball or Playing for the Trick. It is imperative that your team, when acting on the defensive, should follow closely every movement of the ball, and not be deceived by possible fakes or bluffs on the part of the opponents. It is a very good plan to teach the second eleven (if there is a second eleven) some clever tricks which they can try upon your team. If you have no second eleven, see if it is not possible to secure for your practice the services of some clever and bright, even though greatly inferior, team; such a team will very likely have some especial forms of tricks in the nature of double passes, criss-crosses, fake kicks, etc., which will materially sharpen the wits of your men, when acting on the defensive.

The coach should then notice especially when any one of his team disobeys the instructions he has been given in the certainty of his belief that he knows the outlet of the play. Some coaches have had hard experience along this line. They have seen their favorite forwards, who have been constantly coached to go through the opposing line and follow up the play when it is moving away from them - they have seen these men, when facing an inferior team, disregard their instructions, and in their presumed certainty of the nature of the play try and get into the scrimmage by "running back of their own line."

This, of course, is a direct violation of coaching instructions, and would not often occur with a well-trained eleven; but there are other equally dangerous and more subtle ways in which the very best players are led into following their instinct as against their coaching, or, as it is often expressed, "playing for the trick instead of following the ball."
(3) Criss-Crosses and Double Passes. (Calling out.)

Do not overlook the important lessons to be gained when-
ever your team faces an opponent who makes use of crisscrosses, and plays with a second passing of the ball. Your end rushers are the men most likely to detect first the second passing of the ball, and they should be instructed to instantly give the alarm by calling out in a loud voice that a criss-cross has been made.

A criss-cross is always a more or less dangerous type of play to meet, and the valuable practice which your team secures whenever it meets such a play is one which you should surely turn to advantage. Notice just what men are deceptively drawn away from the immediate field of action. The players who are usually the culprits in not rightly apprehending and performing their full duty in plays of this sort are the tackles, ends, and rush-line backs. They should be closely watched, and if one of these players has been fooled by a criss-cross in any game he should be given instructions which will enable him to successfully meet plays of this character in the future.
(4) Whether Backs or Forwards Give Away, by their Attitude, the Location of the Trick. This is an important test, and it should constantly be applied. Many members of the team, unless diligently coached to the contrary, will reveal to a clever opponent the general direction of the impending attack, by the attitude which they assume. If the player is in the rush line he will perhaps, by drawing back from his opponent, reveal the fact that he is to be the runner with the ball; or he will, by the very extra precautions and exertions which he takes, discover to his watchful opponent that the signal has called upon him to make the hole, and that the attack is, therefore, to be at that exact point in the line. Sometimes a forward, in his anxiety to get quickly into the interference, will assume almost the position for a sprint start, and his attitude clearly explains to the other side that the interference is to be directed at the very end of the line.

Oftener, however, it is the backs who give away the direction of the play; and for this reason they are the men who should be most closely watched. Especial attention should be given to their feet. A back who will be careful not to
reveal in any other way, by his attitude, the direction in which the play is to move, will often be quite unable to prevent his feet from indicating clearly the course which he is about to take. The feet are great tell-tales in this matter. The backs should be continually coached to stand with their feet so placed that they not only do not reveal the direction in which the play is to go, but that they confuse the opponents by indicating a false direction. Thus, if the back is to move rapidly toward the end of the line, he should be taught to take an attitude indicative of an immediate plunge into the centre. With a little practice it will be found that he can easily become accustomed to this style of "take-off" for a round-the-end run. An exactly reverse attitude may then be assumed for a centre run.
(5) Starting by the Ball or by the Opponents. This is a point which will bear close watching. The penalties for off-side play are too great to take any risk of being drawn into a preliminary onslaught by some movement of the opponents. The invariable rule should be, when on the defensive, to watch the ball, and never to start until the ball starts, whatever movement the opponents may make. The instant, however, that the ball is put in play, every man should be in motion. Severe coaching should be given to the forward who neglects to watch the ball, or is deliberately induced to anticipate its movement by some bluff of the opponents.
(6) Punting for Distance and Location. It is not too much to insist as the standard of excellence for a fullback on a leading 'Varsity team, that he shall be able, in the majority of occasions, to drop his punt within the limits of a circle having a radius of ten yards. This accuracy of location in kicking punts is almost as important as the mere punting for distance. Certain emergencies arise when the ball must be punted into touch at or near a given point.

For example, when punting on a third down, on the opponents' twenty-yard line, it might enable the team to put the ball into touch inside the five-yard line, thus avoiding the danger of a kick-over. A full-back should be rigidly
held up to the attaimment of a high proficiency in the matter of both distance and location punting.
(7) Test of Blocking for Punts. This is too important not to receive constant attention, and repeated tests should be made of the efficacy of the defense for a kick. A very simple plan is to add to the opposing team an extra man in the line, and possibly one extra man behind the line. When making the test let it be known that the play is to be a kick, in order that every possible advantage may be taken by the opponents against whom you are practising. If the punt-is blocked, do not fail to ascertain the exact method in which it was stopped, and the man who stopped it. Question the men who are deputed to obstruct the efforts of this man as to the reasons for their failure to so obstruct him at this time. Let the same effort be repeated again and again, until ten minutes' practice has been consumed upon this one test. Even if the result is entirely satisfactory, it will be necessary to make the same test as often as once or twice a week, for this is a most vital point in the development of the team, and the men individually must be coached to the best of your ability ; there must be no doubt in your mind that they fully comprehend what is required of them.

In the event of the repeated failure of the full-back to get the ball away in time, it is necessary to ascertain the exact causes by which such failure is brought about. It may be that the punter is too slow in his motions ; it may be that he is standing too close to his line; it may be that the blocking of some one or two men in the line is poor ; it may be that the quarter is slow in the pass, or that the ball does not come back accurately and sharply from the centre. In any of these cases, unless the proper corrective is found, it will be necessary to force an answer to the problem and correct the error, even at the risk of jeopardy to some other part of the play. It may be found necessary to call the ends in from their outposts, and insist that they shall do a slight amount of body-checking before going down the field under the kick. If no other plan is successful, it would be good tactics to call the ends in altogether from their work of
going down the field, and have them assist in the immediate blocking. The ball, however, should in that case be punted into touch, or so far over toward the short side of the field as to make it reasonably sure that no considerable run resulted.

When punting out from behind one's own goal line, if punts have previously been blocked, it is a question whether it would not be wise to bring back the ends for supplementary defense, in order that the kick at this critical time should surely be made without slip or accident. On such a play every man should exert himself to the utmost to go down the field as rapidly as possible after a moment's blocking of his opponent. In this connection the coach will do well to study the possible special formations for defending a punter. One of these is given in another part of this book; and others may be prepared by a little study and experiment.
(8) Test of Location of Hole (by Watching) and whether Back knows its Exact Spot and takes it clearly. This test can best be made by selecting three opponents, and lining up the team against them for signal practice. Let the three supposed opponents know the signals, and move rapidly from point to point in the line where the runner is to appear, or where the hole is to be made. Require your forwards to actually make the opening, and instruct the runner to go through the hole every time exactly as if in a regular play. The results of this test will reveal to the coach whether the back knows the exact point where the opening is made, and is not running wildly for a certain supposed part of the line between two men.

It is a very natural error into which the backs may fall, to locate the hole a foot or two away from the exact spot where it occurs. Sufficient allowance is not made by the average coach for the actual stretch of the line as it moves outward from the centre, and it is not enough, in an important play, to tell the runner that his hole is "between tackle and guard." The proper instruction should be that his hole is "exactly over the tackle's position," or "just
inside the tackle's position." It must be borne in mind that in the average line-up the distance from guard to tackle would probably be five feet; between tackle and end, eight feet. These distances are too great to make it possible for a rumner's opening to extend across the entire distance. It is, therefore, quite essential that the runner should be coached in signal practice as to the exact part of the distance between two men at which his opening occurs. The more that the careful coach studies this particular problem, the clearer it will grow, and the more convinced he will be of the importance of this test.
(9) A Given-Away Signal. It frequently happens that, after the calling out of a signal, a false start is made, and this slight accident is sufficient to give a momentary "rattling" to the team which may go far toward making their attempt to advance the ball an abortive one. Some method or course of action should be decided upon for all occasions where the signal is given away. There should not be the slightest embarrassment on the part of the quarter, and the correction of the signal should be immediate and unhesitating.
(10) The Line no Stronger than its Weakest Point. It is a good maxim for the coach to remember that, just as the excellence of the team as a whole can never rise as high as the excellence of its best player, so it will rarely fall as low as the inferiority of its poorest player. But it is this poorest player who must be borne in mind in all important operations and arrangements. It may be found necessary, at critical times, to reënforce his position, and at other times he will be entirely adequate for the needs of the situation. The watchful coach should never forget, however, the limitations which, by this single weak spot in the line, are drawn upon all his operations. The well-known method of "hammering" at one point in the rush line will reduce even a strong player to a weak one in the course of a single game, and there are very few teams who are not able, by the close of the first half of a game, to discover and report a weak spot in their opponents' line, if such a spot exists.

While there will usually, of necessity, be one man in the
line who is less capable than the rest, the difference should not be a marked one, nor should the coach ever be satisfied by the easy assumption that the rush-line back or quarterback can reënforce this weak player. Such reënforcement is seldom successful.
(11) Sympathy between Backs: of Backs with Quarter: of Backs with Line. The degree of sympathy between adjoining players is a very important element in team play. A back should never go into the line doubtful as to the presence of his interferers in their accustomed places about him. Naturally he has no time to look about him and make sure of their presence in their proper position; he must have confidence in them! He must also have confidence in the quarter-back, and feel assured that he is to receive the ball at a certain place and in the customary way. Without this confidence his play will inevitably be slowed down, and the whole effect of the intended movement will be weakened.

Sympathy between the three backs who carry the ball can best be established by coaching them, when they take their places, to extend their arms at full length, and for a moment grasp the arm or waist of their adjoining companions on either side. This actual touch or contact often imparts that "shoulder to shoulder" courage which marks the spirited attack. Confidence and sympathy are born in that immediate touch. The back no longer "thinks" that his interference is about him ; he knows it.

In the same way the backs should be encouraged to converse freely at all times, in a low tone, regarding the intended manœuvre, mentioning, perhaps, who is to carry the ball, and each assuring the other, in half whispers, that he understands the exact nature of the coming movement.

The sympathy of the backs with the quarter, while just as vital a matter, is more difficult to bring about. Close acquaintance, and the intimate knowledge of each other's thoughts and attitudes which comes with that acquaintance, will materially assist in establishing this sympathy. The coach can supplement this by endeavoring, in his own way, to instill into the minds of the backs a confidence in the
work of the quarter. Let the coach himself make sure that the backs appreciate the fact that the best available quarter has been chosen; that his coolness can be relied upon; that he is being carefully instructed in the employment of the best tactics upon the field, and that he is generally a more capable and trustworthy player than appearances might, perhaps, indicate.

Yet another point is the sympathy between the backs and the line. One often sees a team in which the development has advanced to a point where the team is composed of two units, the barks and the line. The last and highest degree of development has not been reached, and there is a perceptible break in nearly every play where the work of one of these units does not immediately connect itself with the work of the other. It is, perhaps, unnecessary to take the space here to instruct the coach as to the best method to be pursued in each case, for the reason that the fault, which may lie in one of several directions, is usually easily discernible, and the remedy may as easily be applied. The line may be needlessly slow in their movements after the ball has been snapped; or the backs may have fallen into a style of play in which they are anticipating the movement of the ball, through their great familiarity with the actions of the quarter. The emphasis which has been placed upon the coaching of the backs may have resulted in speeding them up ahead of the point at which the line is starting ; or, conversely, the line may have been so successfully developed that they are actually ahead of the work of the backs, and it is the latter who need attention. In either case the problem is not a difficult one, but it is important and should have the immediate attention of the coach.
(12) Test of Place Kicking of Goals. It is a safe maxim that a goal from a place-kick should never be missed. The coach should know, however, that the fault, when any exists, may have one of several causes, all equally liable to occur. It may lie in the holder of the ball; in the lack of confidence of the kicker; or in the bad form in which he has been taught to kick. It is well to have at least two kickers and two holders in every team, and the work of the
holders should be more or less interchangeable, so that either holder may officiate for either kicker. It will be an advantage if one of the kickers is a rusher.

The errors through a lack of confidence on the part of the kicker should be carefully watched for during the season. No man who is uncertain in his moods, and whose play is marked by great variations in its excellence, should be intrusted with the kicking of goals. It needs, rather, a man of good judgment and extreme coolness.

It is always a mooted point in every close game, when a kicker has missed one goal, to decide whether he should be intrusted with the kicking of another goal if a second touch-down is made. If a strong wind is blowing, it may easily be that the kicker misjudged the wind, and, having seen the result of his error, will not again misjudge it, and is, therefore, better fitted to kick the second goal than any other man on the field. On the other hand, if his error arose from a nervousness in this particular game, it will be a mistake to allow him to try again. On the whole it is, perhaps, a safe plan to follow the course laid down by certain trans-Atlantic steamship lines, and punish the accident regardless of an investigation into its causes. Let the rule be, that if the kicker misses one goal he is not allowed to try for the second.

The matter of errors in the form of the kicker is too often overlooked. One constantly sees goal kickers who, after the ball has been touched to the ground, advance two or three steps and kick with much unnecessary force. The ball should not be brought out more than ten to fifteen yards, and with the present rules regarding punt-outs the angle of the kick need not be a difficult one. For this short distance let the kicker stand quite close to the ball, and in moving forward to make the kick let him not bend his body back as the leg is thrown forward, for this withdraws his eye from his intent observation of the ball, and on this intentness of observation his success largely depends. Let him rather make one step forward, and, bending over the ball, instead of bending backward, let him make an easy, light kick over the cross-bar.
(13) Test of Spirit by Driving. Every experienced coach will realize the necessity for this test, and little need be said about it here. In a group of eleven men, it is inevitable that there will be different degrees of spirit, and as a result of the weeks of training it is not unlikely that there may be short limits to the patience and discipline of the team. Under the spur of sharp censure and constant driving, if there is such a limit, the coach will surely discover it, and he may never know of its existence until, on some selected afternoon, he tests the temper of his team by the hardest lind of a coaching "drive." Later he may be able to credit to the account of such an afternoon some of the most important lessons of the fall practice.
(14) Test of Condition by Sending Full Length. This is a matter which concerns only the department of training, but as this department is the very foundation upon which the coach is working, it is proper that it should be subjected to a severe test. From time to time during the season, the development of the physical condition of the men should be ascertained by giving them an entire afternoon of the severest practice. At such times they should be played for the full limits of a game. Let the halves be long enough to allow a reasonable margin for time taken out, and still keep the actual playing halves of thirty-five minutes duration. The probable loss of time may be approximated as ten minutes in each half, and the team should then be played for two halves of forty-five minutes. As the best practice usually comes late in the season, it presupposes the selection of some day when the work may begin at an early hour. The coach should by no means overlook this important test of the endurance of his team.

## CHAPTER VI

## FIELD TACTICS

Generalship. Critical Moment in Every Game. In the progress of a game where much is at stake, there always comes a time when the two teams have fairly measured their strength with each other, have tried their best plays, have exhibited their methods, and betrayed their weaknesses. In nine tenths of our season's final matches, whether between school teams, small college teams, or crack exponents of the highest perfection of the game, - in nine tenths of these matches, we repeat, there is usually not a great deal to choose between the two contesting elevens, either in point of individual physical condition, or ability to execute plays. The contest, therefore, would be a tie if it were not for some other factor that enters into the equation and eventually shows one of the teams frequently markedly the superior of the other. The factor is generalship ; and by this we mean the handling of the team in the immediate progress of the match. This entails, or rather is the result of a proper course of education through a season, for no effective generalship in a game is possible, save through a long study of its problems during the entire season. In the game itself, the captain and quarter carry out the lessons learned from the coach through the preliminary practice and lesser games. Later in this chapter we give the results of the study of many coaches through many seasons, and in doing this we hope to place the coaches and captains in a position to save themselves a great deal of labor over problems that can only be solved by experiment in big matches, and at times when an experiment, though its resulting knowledge may be valuable, may be of itself very costly.

Selection of Good Coach. The first thing to be consid-
ered by a team in the question of generalship for the season is the selection of a good coach. In most of the larger universities, and in many of the schools, there are nowadays not only two or threc available men, but a little army of coaches, no one of whom is capable of assuming, or desires to be given, full charge of the entire season's work. Hence when we say good coach, we mean good head coach - that is, a man who takes entire charge, and is responsible for the final product of the season's work.

A Leader and General. Such a man must be by nature both a leader and a general. He must be of high character, and thoroughly deserving of the full confidence and respect of all with whom he may come in contact. It goes without saying, that he must know the game with something more than the merely superficial knowledge of the player. The coach must have studied its deeper problems, and apprehended its tactical possibilities. He should be persona grata, not only to the team and the rest of the coaches, but also to the faculty. With all this, he must not be a man who is swayed by any desire for individual popularity. He must not be influenced by considerations of what people he may offend, or whom he may please by certain selections of men or methods. He must have no weaknesses of this nature. He must not only know when he is right, but must also have to the full the courage of his convictions; and once set out upon the road that he believes is the right one, no amount of opposition should turn him. Still again, he must be willing to hear the opinions of others, anxious to accept such suggestions as are of value, and too unselfish not to be ready to give credit to another man's assistance. He must deserve, and, deserving, command respect. Then will he be able to produce a team that shall win against great odds, or, if losing, be defeated only at the hands of rivals who, through better material and greater experience, have an advantage at the outset which has proved too great for even the ablest coach to overcome. As this is a chapter to the coach himself, he should practise sufficient self-examination to learn whether he has these necessary attributes, and if he be not possessed of them, and feels that he cannot acquire them, our advice
to him is to hand in his resignation at once, before he starts upon a campaign which can result only in distress and eventual disgrace to himself and to the team he endeavors to handle.

Relations of the Captain and Coach. As the captain is usually elected before the coach is chosen, it devolves upon the latter to realize at the outset that he must work in harmony with the captain, or be of sufficient power and standing to effect an immediate resignation of the captain and the elevation of another man. This should never be deferred to mid-season, or brought about by a system of undermining, too common in college politics. Face the situation at once, and if the captain be unsuitable, act openly, honestly, and straightforwardly, and if the captain is to stay, then send in your own resignation, and give the team the benefit of a coach and captain who are in accord.

But if the captain be a fit man for the place, see to it that you keep his position a thoroughly honorable one before his men. Treat his opinions with respect, and especially so before the players. If there be points in which you think him wrong, it will not be difficult in private to convince him of his error, and then you can both work together to correct any mistakes. You must remember that when it comes to the actual game itself, the captain must carry with him all the power, and have behind him all the obedience of his team. After the ball is kicked off, you, the coach, become but a spectator - one of a thousand others, while he has the carrying on of the battle and the encouragement of the troops. So make sure that you do nothing to weaken, but rather everything to strengthen his position with his men. Make a man of him by belief in him. It is not necessary that you believe in his theories. He may have foolish ones. But believe that he will make an ideal captain, and you will find it not at all difficult, if he is a man of good sense and personal courage, to teach him to be the mainstay of the team. This seems like a long digression from the subject of field tactics, but it is a part of the generalship, and a most important part too.

Selection of Substitute Field Captain. The next im-
portant point to receive attention, in order that the generalship of the great match be properly provided for, is the selection of a substitute field captain - a man who, in case of accident, can step into the place and handle the team. The selection of this man should also be made a matter of great care and consideration, and effected as early in the season as possible. Some trials may, if advisable, be made in this matter, and different men be given the opportunity of trying their hand at leading in some of the minor matches. The one caution that, is worth giving in this selection is not to allow any man to be chosen who is likely to become so vain over the little brief authority as to set up an opposition to the captain. There are such men, and it is just as well not to place them where they can do harm.

Running the Team by the Quarter-Back. After the selection of these field captains comes the question of the interdependence between them and the quarter-back, as well as the substitute quarter-back, for provision must be made here also for accident. The captain should have the final roice during the game whenever he cares to avail himself of that privilege, but it is usually more convenient to have the quarter give the signals. In case the captain is a half or full back, he may be able to give the signals satisfactorily, but hardly when he is a line man. At any rate, in the final discussions and arrangements between the captain and coach, it is well to call in the substitute captain and the two quarters, in order that the general plan of the play may be thoroughly understood by all four.

## Acquaint the Quarter and Captain with your Plans.

 Don't wait until the night before the game to acquaint these men with your views as to how the big match is to be conducted, what your designs are, and how you expect to see them executed. Begin some two weeks before to let these men share your considerations, and make them a part of your counsels. Many coaches put off the final planning of the game until the last few days, and then have so many little things to think of that they hare no time to instruct substitutes. The result is that in the middle of the game the captain is laid up, and the team then goes to pieces becauseit has lost its head. In another chapter will be given in detail a résumé of the many points to be considered on the eve of the match.

Elimination of Unsatisfactory Plays. Two weeks, then, before the match, call the captain, substitute captain, and the two quarters together, and begin the consideration of the elimination of such plays, at that time being used, as are likely to prove dangerous in respect of losing the ball; risky in regard to the opening left for a long run on a fumble; exhausting to the men you wish to keep in the best shape; or irritating to the general spirit of the team.

Conditions Affecting Field Tactics. What to Consider. Outside of any consideration of the strength or weakness of the opponents beyond the question of the relative ability of the two teams, or of their individual comparison, there are conditions which the wise general must take into especial consideration. These are such factors as the wind, ground, rain, sun, seats, and crowd. Taking these in order, the effect of the wind is one that is thoroughly appreciated, though not perhaps perfectly understood by almost every football player.

Value and Effect of the Wind. It is hardly necessary to do more than to state that when the wind blows freshly down a field in a direction parallel to the side lines, the side which has the assistance of the wind gains a great advantage over their opponents upon the occasion of every kick made by either side. But it is advisable to go into further detail regarding the possibility of increasing or decreasing this advantage. Let us consider, first, the side that has the wind: In the case of a really strong wind, this side should do almost no running with the ball until the last ten minutes of the half, or until they secure possession of it within twentyfive yards of their opponents' goal, or at least have it on a first down in close proximity to that line. This will seem to many a strong statement; for, it is argued, with a strong wind a punt from the forty-yard line will go over the goal line. Yes, but in that case it ought always to be a drop-kick, and then it may net five points. Again, if it be a punt, it should be placed across the side line well down toward its intersection
with the goal line. Still further, even if kicking when at the twenty or forty yard line does result in simple touchbacks, the following kick-out may often result in its turn in a fair catch, which may be converted into a field-kick goal. Lastly, beside all this, it is killing to the opponents to be driven into playing a risky game of catching balls in front of their own line, or kicking out in the teeth of a strong wind, and by the time of the last ten minutes of the half, the team that with the wind has been constantly kicking will be sufficiently supepior in wind and dash to be several yards to the good in their running game.

Style of Kick With the Wind. Next, as to the style of kick to be used by the side with the wind. When kicking from your own territory, and when you desire to make all the distance possible, lift the ball well up above the top seats of the bleachers so that it may have the full sweep of the wind, and not merely what little gusts get down into the amphitheatre. Take plenty of room for a hard swing, and give the ball all the drive you can. As you near the opponents' goal, the kicks may be lower and faster, making twisters that are hard to catch unless you wish to put your men on-side. Then, of course, the ball must go up more to give longer time for the descent. If the wind is not directly down the field, always work over for the kick so that you will get as much benefit as possible, even though you are thus obliged to kick across the field. Don't be afraid to try drop-kicks or place-kicks at goal from almost any point in reason. But be very careful to take plenty of room for these kicks, as they rise less quickly with the wind, and the loss of a blocked kick is greater in proportion to the distance that kick might have traveled had it not been blocked.

Duty of Ends when With the Wind. It is necessary to add a word or two here upon the important duty devolving upon the ends in playing with the wind. They must make almost superhuman efforts at times to get down the field in season, because the wind will carry the ball along at a tremendous rate, and their pace must, therefore, be correspondingly accelerated. This is important, not so much to prevent running the ball back, as because a muff is far more
likely under these conditions than on a still day. In fact, a mere touch is all a rattled full-back may get at the ball which then goes on over the goal line. No touch-down is so easily secured, or does more damage morally to the losing side, than one resulting from a muff or a blocked kick.

Against the Wind. Turning now to the consideration of the side that is playing against these odds, with the wind in their faces; if the breeze be a strong one, it is indeed a difficult task, and one that will try the temper and patience of the leader and his men to the utmost. The first thing to consider is whether the wind is so strong as to make a kick wholly out of the question, save when actually forced to it. Fortunately we have had few such winds on the days of our great matches, but once or twice such conditions have prevailed, and have found leaders unprepared for them. A captain should keep close watch of the wind, even after he has entered a half convinced that it is too strong to kick against, for there may be lulls when he can get in an effective punt, and relieve his tired men for at least a few moments. He may also work in quarter-back kicking, and " on-side " kicks to some effect.

Style of Play. As to his running game, he should distribute it as much as possible, so as to enable his team to last out the half. He should play with deliberation, and bring off trick plays whenever there is a promising opportunity. In style of punting, when attempted, he should remember that nothing but a low, hard drive stands any chance of traveling against a wind, and his kickers should always aim just over the heads of the rushers, and put all the force they can into the kick. Try to work off to the side from which the wind comes, if it be not straight down the field. Bring your kicker up as close to the quarter as you dare have him, and block tight in the line. Every yard counts, and you cannot afford to throw distance away by letting your punter stand well back, as you can when you have the wind with you.

Style of Kick Against the Wind. Let your kicker get the ball pretty well up on the instep to drive it, a toe kick has less "go" in it, and is more apt to slip off against a big
wind. Don't be afraid to make a safety muless it is late in the game, and the score so close that the safety would settle it. Coax your opponents to punt over, however, ail you can, because touch-backs are a great deal better for you than safeties, but don't feel that the game is all over if you have to make two, or even three safeties in the first half with the wind against you. One good touch-down goal in the next half will tie the three safeties. Nevertheless, keep it two if you can, because the touch-down goal, or even a field-kick goal will then be a win for you, instead of a tie or too little. Before you go into the lialf, tell your forwards how much it means to secure the ball on a kick, - let them remember, also, how hard to handle these low kicks just over the heads of the rushers are for the other side, - how the wind holds the ball back, and a good, dashing forward will often receive the ball on a fumble by the opponents. They must fight for this hard, for even once or twice saves your team a load of hard work, and encourages them wonderfully in a trying time.

Rain. The story is told of two teams meeting in a rainstorm, and the captain of the defeated team saying, after the game, to his rival, "I don't see how your men handled the ball so much better than we did. We used to soak the ball all night, and then play with it the next day, just to prepare for such a time as this." The winning captain asked, "Didn't you practise when it rained?" "Why, no," said his rival, " we were afraid of getting men laid up. Did you play in the rain ?" "Yes, we practised, rain or shine, just as we play a game, rain or shine."

What Plays to Use, and what to Discard, on a Rainy Day. That was some years ago, and nearly every team now knows that practice in the rain is necessary to a proper understanding of such conditions, and that they may prevail on the day of the big match. It is by this practice, also, that a captain learns what plays must be discarded, and what ones used on a wet day in a sodden field, and with a greasy ball. There are conditions peculiar to individual teams in this respect that can only be determined by practice and observation, but there are certain general rules that may be
laid down without reference to the idiosyncrasies of any team. Primarily, most plays that involve quick, sharp turns or dodges must be discarded on a wet field. Then plays depending solely upon men from two different points meeting at a common point at an absolutely fixed moment can hardly be brought off successfully. All plays involving a double handling of the ball are hazardous at a time when the ball is wet and the footing insecure. Long end runs are impossible (except on a trick play, which makes the opponents the ones who must turn and retrace their steps). Much may be gained by constantly looking for favorable spots in the field both for runner and especially for kicker on a rainy day. There are always spots less bad than others, and the halves, quarter, and full back should keep this in mind continually.

Clothes and Shoes for a Rainy Day. Attention should be paid to each man's cross-pieces before he gets on the field, and extra pairs of shoes kept in readiness at intermission. If the rain be a heavy one, it is well to have a complete change of suit for each man at intermission, because the clothes become so heavy as to interfere with speed and kicks, and to actually tire out the wearers from their weight.

Handling the Ball when Wet. A wet, heavy ball must be handled with the arms and body more than a dry one. It will not do to try to take it on a pass in the hands only. Moreover, it must be kicked while the muscles of the leg are very tense, and must be met squarely. In catching it, on long kicks, the body and even upper leg should be kept well under it, forming almost a pocket in which, with the help of the arms, the ball may be securely held.

Sun. When to Choose It. As most of the games of football played in this country are not finished much before half past four or five o'clock in the afternoon, it follows that where the grounds run east and west the sun plays an important part on cloudless days. When there is no other element entering into the selection of goal, and a captain is debating upon the choice, he should always remember that the sun is far more disconcerting to the backs as it approaches the horizon, and he should, therefore, elect to face it prefer-
ably during the first half. But he may not have the choice, or there may be a wind or other reasons for a different selection.

How to Neutralize its Effects. The coach should, therefore, have provided against this contingency by having equipped the backs with the long-vizored cap. In addition to this, also, the backs should have been well trained in the practice of using the left hand as a shade, holding it out at arm's length as the ball is descending, and drawing the arm in as the ball settles. It is an easily acquired art, and is very serviceable. After a week or two of practice it does not in the least interfere with the catch, and renders trouble from the sun (unless it is very low in the horizon) comparatively harmless.

How to Make Use of the Advantage. To take every advantage of this factor of the sun in a match, the side having it at their backs should make a practice of sending kicks at a moderate height, and with a hard drive, kicking what are technically known as "sailers," that is, kicks that cause the ball to turn over and over very little, while it swerves from a true course, and comes swiftly, dropping very sharply toward the end of its flight. This is by all odds the most difficult punt for a back to handle when he has the sun in his eyes.

But all fields are not laid out running directly east and west, and it often happens that the sun is at the side rather than at the end of the field. Then such advantage is lessened, but with it comes another phase of the question that should receive constant consideration. With the sun very low, and on a field that is upon comparatively high ground, some long passes must be given up, and it is well to recognize this before a neglect results in a fumble.

Ground. Consideration of Snow and Irregularities. We have already treated the question of the condition of the ground in the preceding paragraphs, where that condition was dependent upon the effect of rain. Snow has a similar effect, save that it is apt to pack on the shoes even more than mud, and it is sometimes well to rub a little stove polish on the soles of the shoes before going into a game. Besides
the weather conditions, the general lay of the land should be considered, and the ground thoroughly gone over, if it be a strange one. There may be paths crossing it. It may be that there is a decided pitch in some portion. There may be sandy spots. There may be a baseball diamond. All these things affect the play in a variety of ways, and should be known and allowed for. Especially should the ground inside the twenty-five-yard lines be examined, as in this section of the field most of the kicking for goals, both placekicks and drops, is performed. Then the ground near the side lines, and just outside of bounds, should be examined. The proximity of a fence deserves attention, and ground rules should be made dependent upon these conditions. Note if there be a barrier or obstacle behind either goal, within such distance as might render a punt by a full-back, when the ball is down within, say, a foot or two of the goal line, difficult. If so, there should be an agreement entered into allowing a certain distance out in such a case. If the provisions for keeping the crowd back are inadequate, rules should be made such as will leave no room for argument after the game has once commenced.

Proximity of Crowd or Seats. Beyond all this the coach and captain should view with careful eye the provisions made for the seating of the crowd, also the portion of the field where reporters, substitutes, and others inside the ropes are to be allowed to stand. The seats of the main body of spectators are often so near the side line that the cheering will absolutely prevent the team from hearing the signals when the ball is near that line, and the coach must arrange that the team either collect to receive the signals, or that sigus be used in place of the usual words.

Dividing the Field into Spaces. Scoring Distances. The question arises at once, when the coach begins to divide the field up into spaces, as to what is "scoring distance." A touch-down can, of course, be made from any part of the field. A fumble followed by a run (such as Suter's, in a Princeton-Harvard game) might result in carrying the ball the entire length of the field. But such plays as that must not be taken into consideration by the coach. He must be
arbitrary in his divisions of the field, and, to be arbitrary, he must calculate upon probabilities, not possibilities. In laying out scoring territory, then, it is proper to reason in this way: How near should a team be when they always try for a score with some probability of attainment? Taking all the vicissitudes of the game and play into consideration, we conclude that the twenty-five-yard line is a fair spot, but we do not tell the coach or captain that he is never to try for score at twenty-six or twenty-seven yards out. We only first broadly lay down the law and consider the quarter a responsible and withal reasonable being, who will be properly balanced in making decisions.

Kicking Territory. From one twenty-five-yard line to the other is the kicking territory. Here the greater part of the punting should be done. The exchange of kicks is likely to take place largely in this division of the field, and it is a kind of common ground in which neither side is placed in that position of terrible anxiety which is apt to arise when the ball actually comes into what we have called scoring distance of one or the other of the goals. In kicking territory, therefore, it is possible to count upon fairly steady play, - to consider that even a blocked kick or a fumbled fly may be redeemed, and will not of itself mean a lost goal.

Danger Territory. As for the third division, - the danger territory, - it is the scoring territory of the opponents. Here come in the many problems of defense with increased importance and with added significance. Here, a mistake becomes serious, a bad blunder fatal. There are two or three general rules to be observed here that can be briefly stated as follows: First, in this territory it is dangerous to delay kicking after the ball is secured. If the centre and quarter are practically steady in emergencies, and the backs cool and reliable, the kick may be put off one down. But if the team be a nervous one, or if they are in a state of panic on account of the near approach of the enemy, the ball should be punted out of danger as soon as it is secured. Second: No pass should be made of any length when in this territory, and never across in front of the goal posts. Third : The kicker should always take enough room to make abso-


Diagram G. - The transverse divisions of the field,
lutely sure of getting in his kick, erring on the side of safety here always. Fourth : He should kick down the line rather than across.

Longitudinal Divisions. So much for a brief suggestion as to the three main transverse divisions noted in the first diagram. Next as to the longitudinal main divisions of the field. It has not been very apparent in the games, even the big games, of the past that any regard is paid to this very important point in field tactics. Plays are used indiscriminately, at the whim of the quarter or the caprice of the captain, rather than with any well-considered plan, or from any thoroughly understood reasoning. Even the teams that have played under some system in this regard have not themselves been possessed of the key to their play, but have simply followed orders, the coach alone understanding why his directions have been given. Beyond working the ball over in front of the goal when approaching that hallowed ground, their knowledge has not carried them. But there is almost as much to be considered in these longitudinal divisions as in the transverse ones, - more, in fact, as relating to the use of plays. Let us take the middle belt first.

The Middle. Belt. It is in this belt that a variety of plays should be used, not only because it is practicable from this section to assault either side of the enemies' line, but because there are some plays which are absolutely excluded from the other two divisions on account of the side-line proximity. If, therefore, such plays are not freely used in the centre division, they are practically cut from the repertoire of the team. Criss-crosses are more effective in this section because neither side of the line is packed, and as both move freely the opponents are far more likely to overrun the second recipient of the ball as he goes up on the double. It is hardly necessary to say that drop-kicks for goal should always come from this division.

The Side Belts. As to the side belts, here all kicking is most efficacious when desirable to relieve a menaced goal, but the kicker should stand well out from the actual side line, so as to run no risk of sending the ball out too early in its flight. All double passes, as distinguished from criss-
$53 \div Y$ ds.


Diagram H. - The longitudinal divisions of the field.
crosses, should start from the side belt, because this gives a long open for the second man to circle in, when he tries to go around the end. Trick plays on the centre are also best worked from the side spaces, because here the closely packed men on one side are handicapped, while those on the far side are too much spread out to be quickly of service, as they must guard carefully the open territory.

Further Subdivision. Let us turn now to a more carefu? division of the field. In this, for the sake of making the deductions clearer, we once more make arbitrary lines which, in this discussion, we will assume are admitted, not as absolute, but as indicating in a general way the spaces for consideration. Of course, no captain or quarter can tell to a hair's breadth, when in actual contest, how many feet or inches he may be from the side line or the twenty-five-yard line. He must make always more or less rough calculations. But he is far better off with distinct ideas as to this division of the field than if he regard it, as do most of our teams, merely as one great pasture, in which to browse away at all sorts of plays.

Plays for Numbers 16, 17, and 18. With the ball in possession, and beginning at your own goal, in sections 16, 17 , and 18 , always kick on first down, and preferably down the side line. The best position for the kick is in section 16, at a point fifteen yards out from the side line. This is for a right-footed kicker. For a left-footed kicker, section 18 is preferable at the same relative distance from the side. If by chance the ball is in section 17, the kicker may so take up his position usually as to bring the kick out into either 16 or 18 , as suits his pleasure.

Plays for Numbers 13, 14, and 15. With the ball in 13, 14 , or 15 of your own goal, always kick on second down, and usually upon the first down. Kicks to be made in a similar fashion as in sections 16, 17, and 18. Never pass the ball or kick the ball across the field when in 16,17 , or 18 , or 13 , 14 , or 15 .

Plays for Numbers 10, 11, and 12. With the ball in your possession, and in section 10,11 , or 12 of your own territory, you may play a running game, occasionally up to a
third down, especially if on a generally rapid advance ; that is, if you have made your five yards or more at a single try, not in two downs. Never continue the running game in this section when it becomes slow of progress. Kick then, and preferably land the ball at the end of the kick out of bounds, unless your opponents' backs are known to be fumblers or green men. In that case, give them a chance to muff the ball. In playing the running game use in section 10 and 12 double passes, long passes, and runs around end or around tackle. In section 11, use tackle attack, criss-cross, and variety play; that is, preferably plays that would be impossible on the side of the field. It is a safe rule to lay down that straight attacks upon the centre should rarely be made in the middle belt, unless close to opponents' goal. Advancing still farther up the field, after you have passed the fifty-five-yard line, and are in opponents' territory, it is well (except for a disconcerting play) to defer the kick always to the second and often to the third down.

Plays for Numbers 7, 8, and 9. From section 8 a fair catch may often be turned into a close try for goal from a place-kick. A drop-kick may also be attempted on a third down, or even on a second down in this section. In punting from sections 7 and 9 it is well to land the ball out of bounds down near the corners. In running plays use an occasional trick that has a safe outlet, and otherwise follow instructions for 10 and 12 in 7 and 9 , and 11 in 8.

Plays for Numbers 4, 5, and 6. As we go up the field we now cross the twenty-five-yard line, and come into scoring territory. Here never kick (except a drop-kick on first down) until you come at your third down, and don't kick then unless you have at least two yards to go, or possess a first-class drop kicker. If you have more than two yards to go, a quarter-back kick, or any " on-side" kick, is a good thing here. As for plays to use in sections 4, 5 , and 6 , use your best ones. Keep jamming the same thing at them as long as it is gaining, and then on a first down let them have a trick play, which, if it succeed, may give you a touchdown. Don't spare any man. Use your best man, and use him until he drops, so long as he gains ground.

Plays for Numbers 1, 2, and 3. This may bring you over the five-yard line into section 1,2 , or 3 . When you have landed the ball within this space there is no excuse for not scoring. Daily you should have practised your plays in this section until your team thoroughly grasps the meaning of having the ball within five yards of the enemies' line. You should have a series, in fact two or three series, of plays for use at this juncture, and your quarter or captain should have decided, by use of the parts of these series in the earlier play, just which of the two or three series will prove most effective against the opponents. Bear in mind that if you are in sections 1 or 3 , plays should be used that will tend to bring you into 2 before the line is crossed, but don't waste a play in order merely to carry the ball across the field. In selecting the series, give preference to those plays in which your men are best able to hold their feet. This is a case often of individual custom or peculiarity, and only to be determined in the days of practice. There should be no play tried in sections 1, 2, or 3 (except on a third down after loss) that gives an individual a long, circling run, because in spite of his ability a player under these conditions is liable to run back or be crowded back when alone at the moment he is tackled, so that in that instant of being tackled, having no support from his comrades, he is swept back sometimes several yards, and the ball landed outside the five-yard line. The only exception to this rule regarding long runs is upon a third down after losing ground, so that any ordinary line play is hopeless. Then it is best to risk a long run, or even a long pass, or sometimes a quarter kick, because the only chance left is to make a play that shall net more than the distance between the ball and the goal line, and it does not make any especial difference whether the opponents secure the ball on their five-yard line or on their one-yard line. They will kick it in any event, and the four yards on the end of a kick that lands the ball forty yards out into the field is immaterial. If you must lose the ball on opponents' five or ten yard line, try to leave it as near the centre as possible, and if you can force the opposing full-back to kick out from behind his goal posts, it is much gained. As you approach opponents' goal direct all punts at the goal posts.
OPPONENTS' GOAL


Diagram I. - The field in sections.

Defensive Plays in Cross-Sections. If we stopped here in our study of the division of the field for the better understanding of field tactics, it might be said that we had done our duty, and that the case had been satisfactorily covered. But there is more to be considered. Almost every team has theories of defense, but these theories are behind the theories of offense by some three years. Just as a few years ago our theories of offense bore little relation to the portion of the field where the play was located, so now the most advanced theories of defense have little to do with field division, but are generally applied upon all occasions. But the division of the field into sections, and the study of these sections, is quite as important upon defense as it is upon offense, and the consideration of the subject will prove fully as important to the coach and captain.

Inside the Twenty-Five-Yard Line. Beginning, as we did before, with the three general transverse divisions of the field, we assume that the team is on the defense, - that is, the ball is in the possession of their opponents, and within twenty-five yards of the goal line. As this chapter does not deal with the specialized forms of defense any more than it does with the methods of offense, except so far as they are affected by the position of the play, we do not give the exact distribution of the teams, but we call attention to the results to be accomplished. The first point to be observed within these lines is the necessity of preventing repeated small but steady gains. Out in the middle of the field a gain of twentyfive yards in fifteen downs is not a serious matter, and, in fact, rather to be encouraged, if the opponents are thereby exhausting themselves, for it requires greater strength and wind, as a rule, to make such plays than to check their progress. But here it means a touch-down, and hence it must be especially guarded against and stopped. This is best done by accentuating the push of the line of forwards. That is, while in the middle of the field a long run is to be feared, within the twenty-five-yard line it is the steady gain of short distance that becomes alarming, and to check the latter the "lift" of the line, that is, its pushing power, must be increased even at the expense of other features. The oppo-
nents must not be allowed to push ahead after the runner strikes the line. They must be reached early by those going through, and the interference smashed, if possible, before the impact comes upon the line itself. Every man should here meet his opponent from below up. That is, whether he be free of the line or in it at the time of striking his opponent or the interference, he should be bent low down, and as he strikes should straighten up and lift to force the opponent backward. Some will argue that this is a good thing to do at any point in the field. It is ; but, unfortunately, it cannot be kept up successfully for the entire game, and, for the same reason that a rushing game should not be played all the time, as too exhausting, so, too, the defense must be regulated according to the possibilities of physical endurance and the necessities of the situation. Again, inside the twenty-five-yard line, and particularly as the defense is forced nearer its own goal, the general order should be less loose than in mid-field. The full-back comes up close, the half-backs come in a little, the ends take less room, but put themselves where they can cover an outside run, and yet jump in after the play is diagnosed, and give assistance. The guards do not play as wide as in open field, for fear of centre pushing, and the general effect is that of far greater compactness. From the very fact that the opponents, if properly posted in even the rudiments of field tactics, will play a running game as soon as they reach what they consider scoring distance, the side on the defense is enabled to relax much of its vigilance against a kick, and thus concentrate its energy as mentioned above.

Defensive in Middle Section. When the play is outside the twenty-five-yard line, that is, in the middle section of the three transverse divisions, or the section known as "kicking territory," the formation should be more open, the fullback more prepared for quick kicks, the ends on the lookout for quarter-back or short on-side kicks, and they and the rush-line half-back swinging out wider on account of the greater danger of a long run. The guards and tackles can open up the line with less risk now, giving the quarter greater latitude, and harassing the opponents more in the
execution of the first part of the play. This is possible, because short centre-smashing is far less serious here than near the goal, and may be risked as amounting to little so far as practically affecting the result of the game goes.

Defense when in Scoring Territory. In the third division, that is, in the opponents' goal (your "scoring territory"), the side not having possession of the ball should send its men through at the probable kickers with almost unlimited freedom, only the reserve of two men being back to receive the kick until it is actually made. One man, and one man only, on each side the line should watch for fake kicks, and the rest be sent through regardless of conditions. These two watchers for fake kicks, as soon as the actual kick is assured, come back to assist the two recipients of the punt. The probabilities of a run should be almost entirely disregarded in favor of stopping the kick, for here a blocked kick means a touch-down in all likelihood, either upon the immediate play, or upon securing the ball and crowding it over in short order.

Defensive Play in Longitudinal Belts. Coming now to the longitudinal division of the field: as upon the offense, we cut the field into three parts, the middle belt and the two side-line belts. Here again the defense, that is, the side not having the ball, is fully as much affected by position longitudinally as in the offense.

In the Middle Belt. In the middle belt the defense must be well extended, and well balanced in order that both sides may be covered with security. Always bear the wind in mind, and crowd your opponents to the leeward. This will usually mean less distance for them when they do determine to kick. In the middle belt, force your guards through sharply, and have them follow a play wherever it goes. Let your quarter be freely movable in this belt, except when otherwise governed by the rules regarding the transverse divisions. Let your full-back keep fairly in line with the ball, working a little off to his own right hand, however, as that is the probable dropping-place of the ball if kicked. In the two side belts the defense may be much less arbitrary, especially when the ball is so close to the side line that there
is not room for both the end and tackle on that side of the line. Probably the most logical formation in this event is to swing the tackle over on the other side, because with the close proximity of the heavy guard to the end rusher, the latter will have no difficulty in checking any sudden push play. A clever move in this position is also the opening for the quarter and rush-line half to go through close to the centre, one on each side, the guards making the opening. This is practicable, because there is no danger of a long run on the cramped side of the field, and the rush-line half may then take unusual chances, as may also the quarter. In charging a kicker in the side belts, always crowd him on his kicking side, as that will tend to make him kick out of bounds early in his swing.

Defensive Plays in Sections 16, 17, and 18. Taking now the extreme division of the field, as in the diagram, into eighteen sections, the problem's of the defense may be simplified by following these rules : In section 17, always pack your centre close, and crowd the play out to the side as much as possible. If you must get off-side, don't do it on a third down when your opponents have not succeeded in making their distance. Get your men in the line down low, and make them lift while your full-back and quarter and half keep their eyes open and heads up, ready to jump for the assaulted point, and crowd the runner over backwards while the low-lying line checks him. In sections 16 and 18, and especially when play is near the side line, place your strength out at centre and beyond, and then do your best with the whole force of that formation to pen the opponents in so that their advance must be tried on the short side of centre. If you can crowd them tight enough here, you can pen them up for three downs, and at best they will have a difficult punt-out if they do get across the line. If the score stands six to nothing in your favor, and the second half is two thirds over, fight hard for this, because they may fail to convert it, and thus leave you the winners after all. While always working yourself to make every score a six point, you should always try to force your opponents into fours or fives.

Defensive Plays in Sections 13, 14, and 15. Almost
the same rules apply to sections 13,14 , and 15 , as to 16,17 , and 18 , except that you cannot throw up your men quite so freely into and over the line. A little more care must be observed to prevent an end run, and on third downs quarter kicks may be expected. In all six of these sections especial efforts should be made to knock the ball out of the runner's hands, if possible.

Defensive Plays in Sections 10, 11, and 12. As soon as the defense gets out into 10,11 , and 12 , care should be taken, especially if the opponents have the wind, to watch for drop-kicks, or indications rather that such a kick is coming. In section 11, on a third down by the opponents, you can take great chances on the likelihood of a drop, letting only two men watch for a fake, while the rest go boldly through on the kicker. Let the two who are watching for a fake remember, however, the great possibility of a quarter-kick here also. In sections 10 and 11, the danger of a drop, while not great, is considerable, but a run around the free end or against that tackle is also to be feared. For this reason, as the play approaches the side line, the defenders should not hesitate to swing over a man, generally the tackle, as soon as the play becomes close on the side line end.

Defensive Plays in Sections 7, 8, and 9. In sections 7,8 , and 9 , play with more abandon, and let the action of the line be freer, especially in the attempt to stop kicks. Occasionally an unusual play by the quarter, or even by the rushline back, may be made here in the attempt to catch the opponents unprepared, and make them lose the ball, or so much ground as to be unable to recover it.

Defensive Plays in Sections 4, 5, and 6. With the entrance into 4,5 , and 6 , screw up your line into desperate attempts to block a kick. When in either 4 or 6 , and on a third down, send everybody through except the two who are getting back to receive the kick. Crowd the intending kicker down against the side line as hard as possible. Give the quarter a good chance to go straight through on him.

Defensive Plays in Sections 1, 2, and 3. In 1, 2, and 3, try to keep the opponents penned up in number 2 , that their full-back may be forced to kick out from between the posts,
if possible. This will bother him, and may make him hit the bar or a post. As soon as the ball is as close to the opponents' goal as sections 1,2 , and 3 , it is well to keep up a pretty active motion in the rush-line, not getting off-side, but rapidly shifting position in order to embarrass the play of the holders of the ball. As they are in such dangerous ground, they will naturally desire to get things rather steady, and you, being in your opponents' goal, become quite of another opinion. You should give them no chance to select a hole in your line, and no quiet in which to steady down for the kick.

## CHAPTER VII

## ON THE EVE OF THE BATTLE

State of Mind of Players. Whatever may be said of the ethics of it, there is no question in the mind of any man familiar with American intercollegiate rivalry, as to the willingness of the men on the contesting teams to sacrifice themselves in the contest for supremacy. There is really no hyperbole in the heading of this chapter, so far as the feelings of the men are concerned, except that, on the eve of the football match, they are thinking only of the victory or defeat, while before a real battle their thoughts might revert to the personal peril in the undertaking.

Each man is wrought up to the highest pitch. The test of skill for which he has trained for months - perhaps for more than one season - is about to be made. He is to stand before the eyes of his college, bearing its colors, and fight for them with all his skill and all his courage until the final call of time puts an end to the struggle, and leaves him victor or vanquished? The captain has, perhaps, the most at stake, for he has his own game to play, as well as being responsible for the work of the others. We say nothing of the coach, who, with no outlet in actual play for his feelings, must endure in silence through two hours. There are the last instructions to give and the final decisions to be made, and this chapter is intended to make this a simpler and a more complete matter for captain and coach than are the usual hurried final thoughts that crowd into the mind in the rush of the last twenty-four hours.
Last Day of Practice and What Should Follow. When the team comes off the field from the last day of actual practice, the coaches and captain should assemble, and, calling the trainer and medical adviser before them,
make a final decision as to the men who can be relied upon as fit, physically, to play. The days of carefully nursing here a bad ankle, there a sprained knee - are over ; there can be no more "playing him easy."

Injured Men. The men who are to go into the contest within forty-eight hours will be sent to their utmost if they once line up, and you want the best eleven, all things considered, that you can get. It may be you have to tell the captain that he is n't fit to go in. It is too bad, but such a thing must sometimes be said. The tears roll down his cheeks, perhaps, when he hears the decision, but he is a better man for the feeling that prompts them, and it is one of those cases of hard luck that come sometimes to the best of us. If it is hard to tell him, just mark these lines in this book and show them to him. He will not be the first captain who has had to bear this severe decision. As to injuries, it lies with the medical adviser and the trainer to give you the best information they can. A recent sprain may be very tightly bandaged, and a man, especially a line man, who does not need speed, can get through all right. An old sprain is less likely to be made good in this way, because from rest or further injury the limb is more or less weakened. A medical adviser must do his best for you in the sense of putting aside any question of the sensation of pain that the victim might have, while yet not jeopardizing health or a limb. The doctor, if his connection with football has been a very close one, ought to know that the patient will not feel much of anything during the game anyway. He has other things to think of, and if he himself be asked he will surely say that he is well enough to play.

Over-Trained Men. A more delicate matter comes up when there is no injury, but a player has been over-trained, and it is doubtful what he will be worth in the fever of a game. Here the decision must be governed somewhat by the exigencies of the case: If the substitute is greatly inferior, it is worth while to take some decided chances. If the coach and his advisers decide to play such a man, it is, perhaps, just as well, if he has supposed that he would not play, to let him remain in that conviction until the morning of the
game. It may give him a good night's rest that he otherwise would have missed.

Possible Players. It is necessary to go over the entire list of the possible players in order that, in the later discussion as to what men shall be used, the coach and captain shall know exactly the physical fitness of every man. Lists should be made giving the sound men, the possible men, and those who are out of the question entirely. Then the last two lists should be carefully gone over once more before a final decision is rendered.

Captain at the Conference. It is a question whether the captain is absolutely needed at this meeting. Usually the captain is a man of sufficient force of character to prefer to have a voice in everything that concerns his team. But he may be over-trained himself, or, for some other reason, not be in condition to be worried with the details of this discussion. The coaches can take this off his shoulders if he so prefer. Should it be necessary, as noted above, to put the captain himself among the list of "out of the question," then the substitute field captain may attend these meetings so that he may know the condition of his men.

Second Meeting. Consideration of the Line-Up. This meeting finished, the next one - and it may be attended by the same men, though the medical adviser may leave at his option, but usually the quarter-back should be summoned to attend - is held to determine the exact line-up of the game. The lists of men as submitted by the medical adviser and trainer are read over, and the question is opened. The points to be considered that might possibly be overlooked are the question of the ground (that is, whether home grounds or not; for some players are better at home, and others when away), the probability of good or bad weather, for some players are "mud horses," while others are entirely at sea in sloppy weather and with a greasy ball, and finally, the style of play likely to be met. It is possible that the opponents have a remarkable punter who can always send the ball a long distance, and who is so much relied upon that the whole game has, perhaps, been arranged with especial regard to his work. In that case you must put in some
punter who can fairly match his kicks, whether your man be a very good man otherwise or not. Whereas, if you know your opponents have only an ordinary kicker you can get along with an inferior punter, and rely upon doing more in a running game.

What Plays will be Used and When. Having then settled upon your line-up you take up the consideration of your style of game. Here get out your diagram of the field, and go carefully over the problems, discussing the chances and changes dependent upon wind, weather, or conditions of your men or of your opponents. If the last day's practice has been held at a sufficiently early hour, it may be that you have finished these discussions before bed-time in the evening. If so, it may be well to take the team into your discussion of plays. But usually it is so late that the following morning is the time for that. It will not be necessary to advise the team of the seriousness of the condition of some good player who has been counted upon, but put upon the list of "out of the question." Some teams, however, are mature enough and strong enough to face the situation, and may be told the exact condition of affairs. No matter how much there may be to discuss in these points of the line-up and the policy of play to be adopted, the whole should be settled before noon of the next day, save, perhaps, such few points as the coaches themselves decide to settle at the last moment. This will leave a good twenty-four hours of rest for the team, with their minds at ease, knowing that everything has been carefully considered and is determined upon according to the best judgment of all their advisers.

Ground Rules. Ground rules are best arranged several days before the match, if possible, for then they may enter into the calculations of the advisers in the final arrangement of plays. If, however, these rules have not been agreed upon, the officials and the captains should meet the night before the game and decide upon them, as well as the interpretation of doubtful rules. These agreements should be all drawn up in writing and signed by the umpire, and referee, and both captains. The list should be read over to the assembled team and substitutes the morning of the game, and if there
be any unusual or especially important rulings these should be again read to the team when in their suits ready for the game. This duty should not be left to anybody, - coach, captain, or somebody or other. The coach should appoint some man whose sole duty it shall be to perform this office. Then it will not be forgotten. Many a good team has lost a match on a neglected, or rather forgotten, ground rule. Another man of the coaches should be appointed to see that everything concerning the uniforms is looked to and in complete repair and readiness. Not that he should personally take the shoes to the bootmaker to have the cleats renewed, or go to the tailor to have the elastic band properly fitted in the jacket and trousers, but it should be his duty to see that it is all done, and that, before ten o'clock of the morning of the game, there is not a missing part in the way of proper uniforms for all players and substitutes. It is just as well to have it understood that he report the fact to the head coach at that hour. A team upon which there is a half-back with worn-off cross-pieces may be beaten on that account, and many a team has been handicapped by some such piece of carelessness.

Selection of Officials. The officials have already been spoken of in this chapter as though they had been selected some weeks before the game, and so they are usually, and it indicates a bad state of affairs if such a matter has not been settled well in advance. Unfortunately, through disputes or disagreements, or the attempt by each side to obtain some advantage in this respect, it sometimes happens that the umpire and referee are not chosen until the very last minute. This may mean a too hasty selection, and subsequent dissatisfaction. The home team usually has something the better of it on late selections, as there is a greater chance of incompetent men deciding in favor of the home team on doubtful points; but this is by no means always the case, and a team that reckons on such an advantage is served properly if they lose the game by their own folly. Officials ought never to be picked up from the side lines on the day of a game. It hurts football and spoils sport. It is a wise plan for the coach of a team, if occasion offers, to see the umpire and referee acting in some other
matches before the day of the game, because he can then instruct his team as to their methods and rulings.
Morning of the Game and Final Touches. On the morning of the game the team should be put through the signals, and the succession of substitutes not only settled, but the substitutes themselves put through the signals, and full instructions given them as to their calls in order that they may spend their time while on the side lines to the greatest advantage in watching the play of their probable opponent or opponents. A substitute tackle, for instance, when called upon in the second half, ought to be as familiar with the play of the man he is to face as is the player who is just leaving the field.

## CHAPTER VIII

## THE MORAL FACTORS IN'AN IMPORTANT GAME

Comparison between War and Football. A comparison has often been made between the tactics of football and the theory of war. Looked at from one standpoint, the difference between the two is radical. A close study of both subjects, however, will reveal a very remarkable and interesting likeness between the theories which underlie great battles and the miniature contests on the gridiron.

It is not strictly within the scope of this book to follow out this comparison, though it might be interesting and profitable to the football coach. But in considering the moral factors in the game of football, there is much to be gained by a reference to the moral agents in war, and the value placed upon these agents by great commanders and tacticians.

Napoleon's "Three to One" Ratio. It was a maxim of Napoleon's that in war the "moral" is to the "physical" in the ratio of three to one. This ratio of the moral and the physical is doubtless equally great in the game of football. It remains to be discovered just what these moral agents in football are, and this discovery cannot be made in any better way than by continuing the analogy a little further, and briefly enumerating the moral agents in war. McPherson, in his "Theory of War," clearly points out these moral forces, and we cannot do better than adopt his classification, referring at the same time to the parallels in the sport of football.

The Moral Agents in War. The moral agencies in war might be classed under four heads : -
(1) The Personal Qualities of the Commander-inChief. His knowledge of human nature; his power of
influencing men through their hopes, fears, passions, interests, or prejudices; his ability to gain the love and confidence of his troops; his coolness, self-reliance, and readiness of resource in emergencies; with other qualities of a similar nature.

Coming now to the game of football, we find the correlative of these qualities in quarter-back generalship; in the influence of the captain over his men; in his reputation for coolness; in the comprehension of field tactics; in his self-reliance, and readiness of resource in all emergencies; and in the power of his last appeals to his team. These are all properly moral agents. If the captain does not possess them, the coach must do all he can to supply the deficiency both to the captain and to the team. It is better, of course, that they should be possessed by the captain himself, but in no case should they be overlooked, or their value underestimated.

The Qualifications of Generalship. On this subject let us quote the exact words of Napoleon : -
"The first quality of a general-in-chief is to have a cool head, which receives only a just impression of objects. He should not allow himself to be dazzled either by good or bad news. The sensations which he receives, successively or simultaneously, in the course of a day, should be classed in his memory so as to only occupy the just place due to each; for reason and judgment are the resultant of the correct comparison of many sensations. There are some men who, on account of their physical and moral constitution, make a single picture for themselves out of every event; whatever knowledge, wit, courage, and other qualities they may possess, nature has not called them to the command of armies, and the direction of great military operations."

Detecting the Critical Moment. Famous generals have all shared this opinion of Napoleon's. It must not be forgotten that in every battle there is a decisive point, and a decisive moment (which, once let slip, never returns), on which, and at which, every disposable horse, man, and gun should be brought into action. The problem is to correctly appreciate that point and time, and know when it arrives.

The commander who anticipates the decisive moment, and brings forward his reserves too soon, is lost. The personal qualities before enumerated are manifested in their highest degree by the faculty of correctly determining this decisive moment. The knowledge of when, where, and how to make an attack is the critical thing which distinguishes great generalship, whether in war or football.
(2) Stratagems. The object of a stratagem in war is to deceive the enemy as to your designs. To illustrate this in its simplest form, if a commander desired a general action, he would spread reports of the weakness of his army, and appear to avoid one. If, on the contrary, he did not desire a general action, he would put on a bold face and appear desirous to engage.

Strategy in war finds its parallel in football in the various plays and formations designed and employed by the team. It is not enough that a team should depend upon the simple formations already so familiar to the average opponent that he can tell, with reasonable certainty, the nature of the attack, and where it is to be made in the line. With equal certainty he has probably been coached on exactly how to repel that form of attack. To depend upon this simple form of offense is to voluntarily ignore one of the most valuable weapons in football - namely, strategy. ${ }^{1}$

Force of Strategy in Football. It is a great thing in football to keep your opponents guessing. Properly, they ought never to be permitted to so successfully "size up" the impending play that they are able to move headlong into the defense of their own position, without a doubt of the nature of the attack. You should always work upon your opponents, not merely with muscle, but with brain. Your operations should demand of them that, at one and the same time, they exercise equally their minds and their bodies.

[^2]How difficult this may become, at critical moments, many of our readers can realize by experience. With your own players thoroughly skilled in their attack, and not needing to enter upon it with any doubt or uncertainty, but with a concentration of mind and body both upon the one desired result, they are, theoretically, in a position of distinct advantage over the opponents, whose physical movements must wait upon their mental processes. The moment that you present to your opponents a form of play so simple as to ignore the necessity of a mental impression after the attack is begun, - in other words, so simple as to make it possible for them to readily predicate what the movement is to be, you lose the advantage just mentioned, and their defense may, without extreme risk, be fully as precipitate as your attack.
(3) The Elation or Depression of the Soldiers. This may arise from any cause - from former defeats or victories; from the health or sickness of the troops; from confidence or distrust in the commander, etc.

The correspondent of this in football is the prestige of the team, or the college which the team represents; the spirit which is infused into the players by a realization of the issue ; most important of all, the attainment of a right degree of confidence which never distrusts itself or the final result, yet stops just short of that over confidence which is so harmful.
(4) Information, and the Means of Obtaining It. This would mean in war the knowledge of the country, its topography and resources, its roads and turnpikes, its rivers and railways, its storehouses and factories, its people and their temper, etc. It would also involve accurate intelligence of the enemy's movements, without which the greatest military talent is useless. The faculty of organizing a system of intelligence is a prominent quality of a great commander in war.

One may draw the parallel between this intelligence and the intelligence required in football, by pointing out to the experienced coach the necessity of a thorough apprehension of the rules by every one of his players, and the ability to act instinctively upon this information, which will only come
to the player when his information is well-grounded and thoroughly assimilated by him. His knowledge of the rules must be more than skin deep. If it is a "cramming" of the last few weeks, it can profit him little in the direction which we are indicating. It is not football knowledge which is so valuable to the player as football instinct, and by this is meant the certain ability to act intuitively and automatically upon the knowledge he possesses, doing the right thing at the right time, regardless of any previous specific coaching upon the point in question. No two games of football can ever be quite alike. The situations which constantly arise cannot be entirely apprehended and provided for by the coach in his instructions. The players must meet many emergencies, armed with no other weapon than their football instinct, and this can only come by an absorption of the rules and foundation principles of the playing game.

Explanation of Many Defeats. It is these qualities, then, combined together, which represent the moral factors in football, and it is, perhaps, not conceding too much to admit that the ratio between the moral and the physical in war, as determined by Napoleon, may also be established between these moral factors in football and the mere physical factor of force or strength.

Too often the public forms its estimates of probable results from the physical factors which are visible rather than from the moral factors which are invisible. They do not see the moral forces which are being employed by the masterhand behind the scenes. This "three to one" power is responsible for many seemingly inexplicable defeats. Correspondents of the press, and the unreasoning partisans of a defeated team raise the cry of "luck" in football. Obviously there is a percentage of luck in the game, just as there is luck in any of the situations of life. But football games are not won or lost by luck, except in very rare instances. What appears to be luck is inevitably some one of the moral qualities here enumerated, which, carefully nurtured by one coach, and perhaps unapprehended or unappreciated by the opponents, proves to be the turning-point in the contest.

The two teams may have been developed along exactly
similar lines; to the ordinary observer, and by the tests of ordinary comparison, they are developed to an approximately equal state of efficiency. Yet these two teams play together through a series of years with the result of one of the two teams continually winning, and the other continually losing. The public, naturally anxious to know the reason for this, is full of inquiries: "Are they not practically the same young men, brought from the same schools? Are they not of the same age, and is it not a matter of mere chance whether they attend one college or the other?" The answer to this question may be read between the lines of this chapter. It is not the difference in strength or the difference in skill. Neither is it by a preponderance of instruction given to one team. Frequently we find, upon examination, that the eleven best players would comprise five from one team and six from the other. It is not always the increased knowledge of the principles of team play. The difficulty lies, too often, in the moral forces here enumerated. It is for this reason that the subject has been given the importance of a separate chapter.

## CHAPTER IX

## IMPROVED SIGNALING

The Use of Signals in Football. Every attempt to advance the ball is ordered by a private signal called, usually, by the quarter-back, and consisting of numbers or letters. It is, of course, understood only by the team itself which is making the play. A team which is on the defensive uses no signals.

Recent Changes in Signals. Signals are a very important part of football operations, as they are carried on in the present game. With each successive year there is a tendency on the part of the leading teams to simplify and abridge the signals used, and in the important contests of to-day the spectator seldom hears the long string of numbers which were deemed a necessary accompaniment of the game half a dozen years ago. At the same time the work covered by the signals is being increased, and great benefits have been gained recently by extending the operation of the signals so that they cover, not merely the ordering of the play, but the speed with which it shall start, or the moment when the ball shall be snapped.

Use of Two Codes. Two codes of signals are properly required for the work of a college team during a season : the first should be the practice code, to be used in practice and in minor games ; the second, the final code, to be used in the important contests.

In the first set the need is principally for signals which can be, with very little difficulty, altered from day to day, so that the college eleven may not become familiar with them. Every coach will testify that an afternoon's practice is twice as valuable if the second eleven is unacquainted with the signals. It is not necessary that the system should be changed,
but only that the key or pass-word which unlocks the system shall be altered from day to day, and it is possible to so arrange such a system of signals that they may be perfectly confusing to the opponents, and yet readily explained, with scarcely a moment's delay, to any substitute who may be called upon to fill a vacant place during the afternoon's practice.

Choice of Many Styles. In adopting a set of signals a choice may be made between a great many different styles. There may be word signals, phrase signals, letter or number signals. The latter may be still further subdivided into number signals based on addition, on odd or even terminals, on subtraction, and on combinations of different digits.

It is not the purpose of this book to prescribe any one series of signals. The very publicity given to a set of signals by their publication in book form would compel certain changes before they could be adopted in an important match. It is rather the object of this chapter to suggest the lines along which signals may be worked out; first stating clearly the advantages and disadvantages of different sets of signals, the possibilities of extreme simplicity in the combinations, and the methods of conveying added information, without multiplying numbers.

What is Really Needed. The important point in any set of signals is that they shall be as clear to the team which uses them as they are unintelligible to its opponents. To these two necessities there may be added a few other desirable qualifications. The signals should be capable of being quickly and surely handled by the quarter-back; they should be as short as possible, to the end that they may not slow down the play. Single digits are always better, other things being equal, than double numbers, since the single digit can be called with a snap and vim which communicates a certain quickness to the action of the team.

Two Sets in One Game. One often hears the advice given that no team should go into a match without a reserve set of signals to be used in the event of the regular signals being discovered by the opponents. As a matter of fact, very few teams could prepare two sets of signals for any im-
portant match without finding the remedy to be more hazardous than the original danger. A better system is for the team to have recourse, in such a case, to the regular set of signals which it has used in its practice during the season, and which can always be fallen back upon with a reasonable degree of security.

As previously stated, the tendency in the modern game is toward a simplification of the signals ; and it is not too much to expect that we shall, within a very few years, find our leading teams playing with no spoken signals except at rare intervals, the play being directed by signs, and the use of sequences of plays previously committed to memory, and played very rapidly, without signal of any sort after the first call has been given.

We shall later refer to the advisability of employing one such sequence of plays at certain critical stages in the game. Before touching upon this, however, let us take up the subject of signals proper, and show a few codes which may suggest the possibilities of lines along which signals may be framed.

A Good Method of Numbering the Holes. Starting, then, with a simple set of signals for the use of a school team, let us suppose the various holes in the line to be numbered as follows : -

No. 1 hole, - Around your own right end.
No. 2 hole, - The first hole inside your right end.
No. 3 hole, - The second hole inside your right end.
No. 4 hole, - The second hole on the right of your centre rush.
No. 5 hole, - The first hole on the right of your centre rush.
No. 6 hole, - The first hole on the left of your centre rush.
No. 7 hole, - The second hole on the left of your centre rush.
No. 8 hole, - The second hole inside your left end.
No. 9 hole, - The first hole inside your left end.
No. 10 hole, - Around your left end.
The object of this elaborate enumeration is to prevent a possible misunderstanding in the event of a rush-line back playing in the line beside the tackle, or a quarter-back moving in between the guard and centre, while the guard moves
out. Unless some provision has been made for such a contingency, there will be a doubt in the minds of some of your team whether the hole is to be on the outside or the inside of the extra man, or, in other words, whether the extra man is to be thrown out or in. This little uncertainty may suffice to ruin the success of the play. By employing such a system of hole numbering as is here shown, the error is guarded against. For example, if no extra man has stepped into the line, and the hole number is indicated by the signal 3 , it will be between guard and tackle ; if it is indicated by 4, it will also be between guard and tackle. If, on the other hand, the quarter-back has stepped up into the line between the centre and guard, and the guard has moved out, hole No. 4 would be between the quarter-back and the guard, while hole No. 5 would be between the centre and the quarter.

The Signal Completed. With this system of hole numbering committed to memory, the signal itself is very easily supplied. It may be the first or second digit of the first or second number in the signal, and the signal may consist of three sets of double numbers (or three sets of numbers each having two digits). In such a set of signals the quarter-back should use finger signals to indicate the runner, and a kick may be indicated by a double number of the same digits at the finish of the signal (as $22,33,44$, etc.). Do not put the kick signal where the hole number is indicated in a simple set of this nature.

Arranging to Add a Starting Number. A very easy addition to this set of signals for an emergency would be to suddenly increase the number of numbers, and instead of using three sets only of two digits each, to use eight or nine double numbers, and let the play start instantly upon the calling of the first double number over sixty. The intermediate numbers after the calling of the signal and before the calling of the first double number over sixty, may be either single or double numbers. Thus, for example, suppose the second digit of the first number to be the hole number, and that the play started on the calling of the first number over sixty, the signal might be as follows : " $27,36,33,9,5,6,7$, $49,65, "$ - and the play would be off with a rush.

Another Set Illustrated. Another simple set of signals might be based upon a different numbering of the holes, and would be arranged as follows : -

$$
\text { No. } 1 \text { hole, - Outside end. }
$$

No. 2 hole, - First hole outside tackle.
No. 3 hole, - First hole outside guard.
No. 4 hole, - First hole outside centre.
If the key number at the end of the signal was an odd number, it would mean that the right side of the line was referred to, but if it was an even number, it would mean that the hole was on the left side of the centre. The set of signals might be composed of four single digits ; the difference between the first and second digits would be the hole number. The third digit would have no meaning whatever, and the fourth digit, if it was odd, would mean that the hole was on the right side of the centre, in the position as signaled, and if it was even, that the hole was on the left side of the centre in the position as signaled.

Thus the signal $2,5,8,1$, would mean that the play was in hole 5 less 2 , or hole 3 , which is the hole first outside of your guard's position, and the last number being an odd number, you would understand that it was the right guard.

With this set of signals it would still be necessary to employ finger signals for the runner. A kick would be signaled by the fact that there was no difference between the first and second numbers, as $6,6,3,1$. It may be argued for such a simple series that the signal for the kick was too transparent, and indeed it would be. It will not be difficult, however, to devise some additional means of signaling for a kick, which shall make it impossible for the opponents to decide with any accuracy how the kick is ordered.

A Combination on One Double Number only. A good set of signals of a very simple sort, composed of only one double number, with suitable additions to screen it from the opponents, may be made up as follows (using the same numbering of the holes as described in the last set of signals). Let the first digit be the hole number, and the second digit designate the side of the line on which the play is to be ordered. If the second digit is odd, it is on the right side
of the line; if even, on the left side of the line. A double number of the same digits would be the signal for a kick; finger signal for the runner. In all the sets we have thus far considered, the formation of the line-up must be separately announced before calling the signal.

With this last set of signals it would be possible to confine the signal to three sets of double numbers, of which the first and last would mean nothing; the middle, to be composed of two digits, would indicate by the first digit the number of the hole, and by the second digit whether the hole was on the right or left of the line. If this second digit was a double number it would mean a kick. Thus 47 , 39,12 , would mean that the play was just outside your right guard. So simple a set as this could never be used against experienced players.

A Combination on One Letter only. A set which is not difficult, but may yet be very confusing to the opponents, can be composed of letters in such a way that one single letter alone is needed to convey the signal. The set is based upon the visualization of the lower-case letters of the alphabet, as they appear in writing (not printing), and the designation of the hole would be conveyed as follows: Any vowel stands for a play around the end. A consonant with no extension above or below the line (as c, m, n, r, s, $\mathrm{v}, \mathrm{w}, \mathrm{z}$ ) would mean the hole between end and tackle; any consonant having an upward loop (as b, d, h, l, t) would mean the hole between tackle and guard; any consonant having a downward loop (as g, q, y) would mean the hole between guard and centre; any consonant having both an upward and downward loop (as f, j, p), would indicate a kick. The formation would be called by the quarter-back before the signal, and there would be a finger signal for the runner.

The right or left hand side of the line might be indicated in a variety of ways; a second letter might be called which, if it was further along in the alphabet than the first letter, would indicate a play on the right side of the line, but if it was nearer the head of the alphabet than the first letter, or, in other words, if the letters were given reading back-
wards from their usual order, the play would be on the left side of the line.

A Well-Concealed System Illustrated. Another set of signals, which lacks a little the element of brevity, but is cleverly covered up from the comprehension of the opponents, would be based on a numbering of the holes as explained in the first set of signals here given, where the openings are numbered from 1 to 0 , and provision is made for ten different openings in the line. One digit only is needed to designate the hole in such a system, and this would be the first digit of the first number following any number under 20. Thus, for example, $67,83,55,19,27,4$, 6,5 , would indicate that the play was the first hole inside your own right end. The same play might have been indicated by the signal 1, 2. By this set of signals a kick would be indicated in the signal by the absence of any number under 20 . Thus, $65,47,23,84,71$, would call for a kick.

Example of Practice Signals with a Changeable Key. We have already mentioned the advisability of a set of signals based upon a certain key or countersign, which may be changed from day to day, while the system remains the same. Such a set of signals is an excellent one for use in the earlier practice of the season, for by changing the countersign or key-number each day, it is possible to successfully mystify the opponents during the short interval of practice.

A very good set of this nature can be made up as follows: - the quarter-back calling the formation before the signal is given, and indicating by his fingers who the runner is to be. Let the hole be the first digit of the first number following any number in the twenties. Thus, for example, $53,96,17$, $28,45,6,9,3$, would signal for hole 4 , since it was the first digit of the first number following the first number in the twenties. With such a series it would be well to employ the numbering of the holes which provides for ten holes for the runner, and includes both sides of the line, leaving it unnecessary to signal that the play is to go on the right or left of the centre.

If such a set was used as here given on the first afternoon of practice, it might be changed, on the second afternoon, by establishing the key, as any number in the fifties, or any number under twenty, or any number in the thirties over 34 , but not under 34 ; on the next afternoon it might be shifted by making the hole number not the first digit, but the second digit, of the first number following the key number. If the key was any number in the forties, for example, and the hole number was the second digit of the first number following any number in the forties, hole No. 1 might be signaled for as follows : $13,6,89,49,31,77$.

The changes of the key number and the number of the digit which designates the hole, may be so endlessly continued that a single set of signals of this nature is all that is needed by both elevens during the early weeks of the season. When the use of double numbers has been so far employed as to exhaust the seeming resources, triple numbers may be employed, or the key number may be located as between two other numbers; for example, instead of saying that the key number was any number in the thirties, let it be put as any number between 35 and 45 , and thus further complicate the system when it has become too familiar.

Example of an Advanced Set for an Important Contest. We have so far given only those signals which provide for the calling of the formation in advance of the signal, and the giving of a separate finger signal to the runner. Let us now study one elaborate set of signals, showing how much may be conveyed by the calling of three or four single digits. We will use for this set the enumeration of the holes as first given, with allowances for ten places in the line at which the runner may emerge.

We now number each formation from one to twelve, beyond which number it is not best to go, and, indeed there are few teams who ought to enter an important game with as many as twelve different line-ups.
(The advantage of not going beyond twelve is that we are endeavoring to confine this set of signals to three numbers which can be pronounced with the greatest speed, and we
must avoid extra syllables. Eleven and twelve are each pronounced hurriedly as one syllable. But the moment we enter upon thirteen we have a number which must be called as two syllables, and which is, therefore, somewhat clumsy to use in signaling. This objection applies to all the numbers between twelve and twenty; it is, therefore, best to limit the line-up number to twelve, if possible.)

We will compose the signal of three single numbers, none of them over twelve; each signal is to be called at least twice. Each different line-up or initial formation is to be designated by a number, and this number is to be the first of the three numbers in the signal.

The second number indicates the hole, if a regular formation is used, or the number of the outlet, if the formation is a "special" formation, radically different from the customary line-up. This change of the second number by means of which we use it at one time to designate the hole in the regular notation, and again to designate the number of a play in a special series or line-up, is adopted in order to prevent the opponents from singling out any number in the simple series of three digits, which shall always be the hole number. It would manifestly be the most serious of all mishaps if the opponents were able to detect the scheme of the hole number. Where a single set of three digits is employed, the hole number must clearly be one of these three, and it would not require much effort on the part of a bright man to pick it out. On the other hand, the use of this second number, alternately as the hole number and as the number of a play in a particular series of plays from the same line-up, is just sufficient to confuse the opponents and prove conclusively to them that they do not know the system by which the hole is designated.

The third figure in the signal is to be a "speeder," or a signal to indicate the rapidity with which the play is to be executed. If this third figure is $3,6,9$, or 12 , the play is to be made instantly upon the beginning of the second calling of the signal. If it is any other figure under twelve, the play is to start when the ball goes, and not before, and the ball is to go back in the ordinary way.

The calling of the hole number, as 10,11 , or 12 , would indicate a kick, and if the play was a drop-kick, it would doubtless have a special formation for its protection, and would be called, not as the hole number of a regular formation, but as the series number of a special formation. No formation need be called, and the opponents lose the advantage of hearing the formation designated.

A few examples of this set of signals will make their working clearer. Let us suppose that we have a series of formations as follows : -

Nos. 1, 2, 3, 4, Simpler formations, to be signaled by hole numbers.

| No. 5 | . | Ends back. |
| :--- | :--- | :--- | :--- |
| No. 6. | . | Left end over. |
| No. | . | Tandem formation at tackle. |
| No. 8. | . | Trick play for side line. |
| No. 9 | . | Trick play, long pass. |
| No. 10 | . | Special formation for criss-cross. |
| No. 11 | . | Special formation for protection of drop- |
|  |  | kick. |

Formations Nos. 1, 2, 3, and 4 would indicate by their second number the hole in the line, according to the regular system of numbering. The other formations would indicate by their second number the number of the play in the series having that especial line-up. Thus $3,9,6$, the formation would be a regular formation; the play would be just inside the left end, and the play would be made instantly on the conclusion of the second calling of the signal. 5, 2, 4, the formation would be ends back; the play would be the second play in the series from that formation, and it would not start until the ball came in the regular way. $10,1,3$, the formation would be the special formation for a criss-cross; the play would be the first play of that series, and it would be made instantly on the finishing of the second calling of the signal.

Individual Preferences of Players. Enough has been given here on the subject of signals to indicate the possibilities of the situation. One last point: adapt the signals to the team. Some teams will take more readily to one set
of signals than to another. There are teams which cannot scem to handle a signal that requires subtraction ; there are other teams which will positively rebel at the use of any letters in a signal. Yet these teams will find not the slightest difficulty with a more complicated set of signals based on numbers alone. As a rule, teams do not like signals based on both numbers and letters, and they are very apt to give numbers the preference over any other form of signal.

Quick Sequences without Signal. Before closing this chapter we want to revert to the subject of sequences of plays, where different movements are executed without signal, the order of the movements having previously been committed to memory. The use of the word "sequences" is here meant to cover any plays, not necessarily from the same line-up. A team which has had no previous experience in sequences had better limit their use to a single sequence of three plays. They should be three of the strongest plays which the team can employ, and the object of the sequence is to play them without signals, to the end that they may be sent away with the greatest speed, and without waiting for special information by signal after the usual method.

If the sequence is composed of three plays, the first one may be a dash around the end, the second may be between tackle and guard, and the third between tackle and guard on the other side of the line. Whatever they are, they should be constantly practised as a series of three movements, without any intermission or pause, and without any instructions from the quarter-back between the different movements. It goes without saying that the team must be able to line up before their opponents in every one of these manœuvres. In fact, quickness in lining up is the vital necessity in all sequences. It is of little use to employ a sequence, or to waste time in committing to memory the order of any plays, unless the team, to a man, shall line up almost before the runner is off the ground.

The Signaling for a Sequence. The best method of signaling a sequence varies according to the nature of the system of signals which may be employed. One method would be to let the first number be a separate number, en-
tirely apart from the signal itself, letting it be a single digit under 10, and always followed by a decided pause before the rest of the signal is given. If the signal proper was 9,5 , 2 , and it was desired to signal for a special sequence, it might be called as follows : $12-9,5,2$. In this case $9,5,2$ would, of necessity, be the first play in the arranged sequence, and the calling of the figure 12 -with a pause - would signify that three plays were to be played, following each other in the most rapid manner, and without any further signal.

It is well to construct a sequence for use inside the opponents' twenty-five-yard line, and in the making up of a set of signals it will be necessary to provide for it in their construction.

## CHAPTER X

## TRAINING

Training a Systematic Preparation. Training is a preparation. If the captain and coach can keep this fully in mind far fewer mistakes will be made and the tales of teams going to pieces in the middle of a season will be much less frequent. As a rule, a team has but one or two great games, toward which the management looks as the real end of all the striving. These matches come at the last of the season, usually within a week or ten days of one another. In many instances there is but one really great game. It may be argued that this is unfortunate from a theoretical standpoint, and that, as football is only a sport, the interest should be to get as much amusement out of the season as possible, and from this view every game should be an occasion for simple enjoyment. In this book it is not our purpose to dwell upon the ethics of college sport, but to treat the game of football exactly as it is, rather than as it might be in Arcadia.

To Produce the Best Play of which the Team is Capable. The preparation, then, with us is directed toward placing a team in the field upon the occasion of final contest in such a physical condition as shall insure their playing the best game of which, as individuals and as a team, they can be made capable. With broken-down pugilists of the past the methods were severe. It was believed that in severity of training lay the safety of condition. Possibly there was some truth in this, but probably even in these cases and in the old days more would have been accomplished by less heroic measures. However that may be, the case of the average collegian is not one for violent initial overturning of ordinary customs.

Gradual and Temperate. The more gradual the preparation, the safer and the more certain the final result. But there is much to be considered in this connection. It will not do to begin the preparation of football candidates in June, and work them gradually but steadily through July, August, September, and October. If that plan be pursued, it will be found that the mental effect of such prolonged preparatory labor has been to make the players tired of the game, and, of all sports, football needs the most fire and dash. Physically, if the preparation has been very temperate, the players may be all right, but they are sick of the game mentally. The first thought, then, to engage the attention of the coach, is when to begin the training. Some contend for a little preparatory work in the spring, followed by a long summer's rest, with occasional work on specialties, and this is, undoubtedly, a good plan for the kickers of a team. But outside of this, and in the case of the general run of men, it is best to wait until September before engaging in anything like the work of training.

Age a Factor. The age, too, of the candidates is an important feature, young players being especially liable to overtraining, and requiring much attention even in a short period of practice. A team in one of our big universities is almost always sure to have one or two men of but seventeen or eighteen, and these should be watched with especial care. Even at the outset, such men should be played only every other day, and generally handled in a far different manner from the hardened veteran of twenty-four or twenty-five.

Work of the Kickers. The early work of the kickers is treated in a separate chapter, but it is right to say here, that practice in punting and drop kicking should be short in hours and extended over a longer season than any of the rest of the work. The kickers of a team, or rather the candidates for positions likely to require kicking ability, should be men who have already had practice of a preliminary nature either at a preparatory school, or, at any rate, before becoming probable 'Varsity men. A one-season kicker is seldom satisfactory, either in point of length of kick, ability to "get in" his kick under trying circumstances, or accuracy of perform-
ance. We must suppose, then, as we do usually in the case of candidates for battery positions on a 'Varsity nine, that of the kickers the men we expect to handle have already placed themselves above the level of mere beginners. They should then be given some spring practice, and it is not a bad idea to stimulate this by the offer of prizes for superiority. At nearly all the universities this plan has been tried with more or less success. We say "more or less" advisedly, because the usual winner of such competitions is not the most serviceable kicker for a teain, and is frequently a man who may fail utterly to make a place for himself. The difficulty of devising methods of scoring in this kicking competition has something to do with this. A combination of distance, accuracy, and quickness should be the desired achievement and the winning one.

Preliminary Practice. After the spring work there will be some few men who, perhaps, have no other athletic interest than football. These men may continue occasional practice. But the majority of men, with the varied interests now furnished in the athletic line, are apt to be taking up - something on the track, or the diamond, or in the boats. For this reason, any concerted practice may just as well be dispensed with. The men should, however, be called together before the beginning of the long summer vacation, and each man should receive a ball. Nor is this enough to insure the proper amount of kicking practice during the summer. Each man should be urged to make certain promises regarding the work he will do. The average man will mean well, and will, on the first day that he thinks of it, and can get some one to chase the ball or take an interest in his punting, kick himself lame and tire out his muscles, and then drop it all for some weeks, only to do the same thing when, a month later, the sight of the ball pricks his conscience. There is no use in making drudgery of it, but a man ought to kick twice or three times a week during the summer, and only a short time, but with attention to good form and accuracy. By the latter part of August the kickers should kick every day, and spend a week together at some rendezvous before assembling once more at college for the fall work. The cen-
tres and quarters may be included in this meeting to good advantage, the quarters especially for practice, and the centres because they are apt to be soft and fat, and need the additional work. At this week of practice, the kickers can get work of especial value, in that their punting can be done from a pass from the quarter, and also because in the presence of so many kickers there is plenty of practice in catching. During this week, one or more coaches should be on hand - not the general coach, but the man or men who have charge of the kicking, and the work of the backs. As for the rest of the team, unless some revolution in methods of play may be necessary, there is no need of summer practice. It may be the case that a team, owing to lack of coaching or mistaken ideas, may have dropped entirely out of its class and only discovered the blunder in the final games of a season. Then a revolution is necessary, and in such a case it may happen that summer practice, while in itself really an evil in the case of a properly drilled team, may be, in their case, a practical necessity, owing to the immense amount of work involved in assimilating new methods.

Opening Fall Campaign and Safeguards Against Accidents. This brings us to the opening of the fall season proper, with the assembling of the players on the field after the term begins. Here, no matter how much general training may have been practised by the individual during the late summer, there is the greatest need of caution. In spite of all the care that may be taken, there are almost sure to be some injuries in the early days of practice. This is due to a variety of causes; to the bad condition of the grounds, to the impact with green men, in a measure, as well as to the incentive to unusual endeavor in the excitement of making a good showing. Every man feels that he is on trial, as he may be a candidate for the 'Varsity team, and only those who have been through it realize how a boy's heart may be set on achieving this honor. But a coach can do no more than to take every precaution, and then the chances are that he will get through these trying days with nothing worse than sprains that will mend before a month is over. .His first precaution should be to see that the ground is in good condition,
that it is well rolled and free from holes and hummocks. He should then see that every one of his promising men have their leather ankle supporters on. Finally, he should use three men behind the 'Varsity line who understand each other, and the simple signals, or else use no one of his best men there. On the first day or two the playing of a green man and two old men may result in accident to one of the good players through mistaken signals.

Duration of Practice. The actual duration of the lineup playing on the first few days should be hardly over five minutes twice repeated. We will assume that this is the last week in September. The time should be kept at fiveminute line-ups for a week, and then be extended to one tenminute, and one, or on cool days two five-minute periods. After another week, two ten-minute line-ups may be indulged in, and by the end of October stretched out to fifteen or twenty. Match practice games at this time in a season should be limited to two fifteen-minute halves, or a twenty and a fifteen, if the day is cool. By November, if the weather is at all seasonable, the players should be able to stand once or twice a week a second half of twenty-five minutes, after a short first half of ten minutes. It is well to bear in mind the fact that two days of hard playing ought not to come together, unless purely for the sake of discipline, as, for instance, in the case of a team that has been "babyed" too much and needs a lesson to show them that hard work does n't kill anybody.

Detail of Training. We have briefly outlined the course to be followed with the average football team, so far as the amount of work that may be expected of them is concerned. Now, as to general condition; the four agents that effect that equilibrium which we call health may be grouped as exercise, diet, sleep, and cleanliness. So far as the limits of this chapter are concerned, we may say that the first of these agents has been discussed sufficiently in the directions as to the limits of practice.

Diet. The next agent, diet, brings us to a question of more or less personal idiosyncrasy, but fortunately, in the case of the candidates for a football team, we have in the
main a set of men of normal stomach, and whose physical peculiarities, if at all pronounced, lie in an almost abnormal ability to eat and digest anything. Naturally there will be, here and there, an exception, but the majority are in that happy condition of not knowing that they have stomachs or livers, or any of those possessions that many find, later in life and under violations of the laws of health, are of such importance.

Hours for Meals. In spite, however, of the fact that little goes amiss with our candidates in the way of food, it is well to be on the safe side, and to consider what foods are most conducive to satisfactory assimilation, and, what is fully as important, the best time for taking these foods into the system. Briefly, breakfast should be from seven to eight; the midday meal preferably about one o'clock, and surely not later than that, and the evening repast should be soon after six. Under these conditions, the practice should be from ten to eleven in the forenoon, and at some interval between three and five in the afternoon. Much variation of these hours for practice should be followed by a similar change in the hours of meals, two to three hours elapsing after eating before the violent effort, and an hour of rest succeeding before sitting down to the table. In certain cases the hours of recitation or lecture in a university are such as to make some changes in this arrangement necessary. In that event, make the best of it, but conform as nearly as possible. Under no circumstances venture the experiment of permitting hard play too near a hearty meal. We have seen one of the strongest men incapacitated temporarily, and for a time it was feared quite seriously affected by such an injudicious plan. This man was a rugged fellow of over one hundred and ninety pounds in weight, strong and robust, who, under a physical examination by a physician, had been pronounced absolutely sound. He was trying for the 'Varsity, and, as a new man, had not been taken to training-table, but was boarding at a house where it was afterwards learned the midday meal was served at half past one. At that time the practice began soon after two o'clock. The result was that this man ate very heartily at half past one, and then
went on the field at two. In spite of this his play was strong, and it was some days before there was any reason to suspect anything wrong. The man, in some marvelous way, seemed able to retain the food, or there would have been an indication of the difficulty. One day he came over in citizen's clothes, and was asked what was the matter. He said that he had concluded to give it up. Pressed for the reason, he said he thought there was something wrong with his heart. He was taken over at once for another examination, and the physician reported him as showing no signs of any organic trouble ; however, there might be some irritability, according to the man's account, and it was decided to watch him. After a few days' observation, the doctor hit upon the trouble when he learned the time of his dinner. This corrected, the man speedily came into shape.

Kind of Food and How Served. As to the kinds of food best suited for the training-table, they are unquestionably, for stand-bys, beef and mutton in the way of meats, toast and stale bread, vegetables and fruits in moderation, and water. Football diet may be far more liberal without error than that of certain other athletes, and the addition of eggs, occasionally, fish, provided it can be secured in an absolutely fresh condition, oatmeal, and plain puddings, are perfectly allowable. It would seem unnecessary to go into further particulars, but experience has satisfied us that it is advisable to take up the detail of this matter with far more care. It is no exaggeration to state that a team fed upon the above foods may go entirely out of condition, owing merely to the cooking or the service of the food. Therefore, let us say at the outset that the food should be well cooked, appetizing, and served in a tempting fashion. The meats are best broiled or roasted. In spite of a prejudice against warmed-over meats for men in training, an occasional réchauffée is by no means to be entirely condemned, as it makes an agreeable change when attractively cooked. Boiling is not so satisfactory a method of cooking as roasting, but not to be entirely tabooed. Frying is not well suited as a means of cooking meat or anything else for men in training, although an occasional fried egg, if free from grease, is not likely to

Diagram J. - Broken line shows course that the general condition of the men should follow. Dotted line indicates the usual course.
be injurious, and is a most agreeable change from the more flabby boiled and poached article.

Vegetables. It is sometimes asked what vegetables may, with advantage, be added to the menu of the training-table. They are as follows: Potatoes, onions, spinach, asparagus, cooked celery, artichokes, French beans, and the like. Unfortunately, in the East it is impossible to get all these fresh in the season of football, and canned food of all kinds should be avoided becanse it is sometimes in a condition to be injurious. Peas are not to be recommended, because usually "bolted," that is, not sufficiently masticated, by the men. If they are all crushed on the plate with the fork, that difficulty is avoided.

Drinks. Upon the question of drinks there is a wide difference of opinion. As a rule, water is sufficiently satisfying. Milk agrees with some men, but is just as well let alone by the majority when in training. Iced tea is not a good thing, although it is much fancied. Mild hot tea is to be preferred to this, but it is better to bar both tea and coffee. Ale to men "going fine" is quite right, but only once a week to those who are in condition, and then only after a hard day. To return then to water. Oatmeal water is the common form for service at our football training-tables, and it is the best regular beverage. Bearing upon this point of drinks, and showing the advisability of moderation, is the case of a centre rusher in one of our crack 'Varsity teams, whose weight was altogether too great, and who was, therefore, put through a rather severe course to reduce his avoirdupois. He weighed close to two hundred and forty pounds, and only a little of it would come off, in spite of his daily work on the field, followed by long runs and evening work in the gymnasium. Those who had the case in charge would put him on the scales in the evening after his day's work was done, and show a reduction of perhaps six or seven pounds. But by noon of the following day he would have made up the waste and tip the old amount. Many were the sighs heaved over this incorrigible mountain, until at last one of the suspicious coaches arranged to have the man watched. Then the cat came out of the bag, for it was dis-

Diagram K. - Yale Team of 1884. Very irregular ; too early development followed by a "slump" in mid-season, with partial recovery. This was comparatively a veteran team.
covered that, nightly, before retiring, the youth had a huge pitcher of milk brought up to his room, from which he appeased that thirst which the banting process made severe.

Novel Ideas and Emergency Suggestions. In this chapter on training it is well to speak of certain novel ideas that have not yet received sufficient test in a practical way to be set down as reliable, but which are well worth further trial, especially in cases where the ordinary methods fail.

Reduction of Flesh. First is that regarding the reduction of superfluous flesh in obstinate cases. The following system has had a fair amount of trial, and has not apparently resulted in anything that could be called objectionable, although in this, as well as in other experiments, it is well to submit the treatment and patient to the physician, and watch the experiment with care. The method consists in a strict diet of lean meat and hot water. Only moderate exercise should be indulged in during the first week. After that the exercise may be, and should be, up to its regular limits. The hot water is to be taken four times a day, one hour before each meal, and a half hour before retiring, and the quantity should be two ordinary glasses at a time. This makes eight glasses a day. The man will, almost from the outset, exhibit a good appetite, and he can be allowed to eat as much of the meat as he cares for. Beef and mutton only should be given. The treatment need not be as severe as the above in ordinary cases, but the man should be allowed a few vegetables - not potatoes - and toast. He should, however, be kept upon a two thirds meat diet.

Increase in Nitrogenous Ratio. A good authority on food stuffs, after following the diet of a team for two years, and making some experiments, is strongly of the opinion that, as a rule, it is advisable to give the men more sugar than is usually believed in during the week or so before a game. The usual experience in this line has been against much sweet, but it is probable that a slight increase of the sugar allowed would not prove harmful in the case of those who craved it, and whose stomachs were not upset by it. Of course, this does not mean to displace the ordinary food with candy or sweets, but merely the addition of ice cream, sweet desserts of plain character, such as prunes, etc.

Diagram L. - Team of 1885 at Yale. A green team, composed of new men almost without exception. (Peters' team.) Most consistent progress. Met a veteran Princeton team, and although supposably outclassed, played a remarkable game, losing by one point.

To Steady a Nervous Team. Another theory that has met with some success in practice is that of putting the men to bed after an early luncheon on the day of a big match. This experiment tried upon a team that had always been nervous and unsteady in the first five minutes had a markedly favorable effect. The men were put in separate rooms, - darkened as far as possible, - and given over half an hour between the sheets. The majority said they actually went to sleep, although it was hardly supposed that they would.

Over-Training. This chapter would be incomplete without a thorough consideration of that bugbear of all coaches, -over-training. At the outset it is well to state that there is no fancy that can creep into the head of a player that will do more to mar his performance than that he is overtrained, or "too fine," or going "stale." When a man acquires such a notion, it is often mere imagination, but if it becomes a fixed idea he is as badly off as though it were real. Coaches and captains should, therefore, be particularly careful not to set up the notion by directing their inquiries of the man with such form as to let him suspect that he is in danger.

The theory of over-training is that a man does not repair the waste.

More Mental than Physical. Now, as strength depends upon newness of muscle, that is, the constant waste and repair, it is the exception that a good healthy subject of the age of most of our football players becomes over-trained in the sense of physically over-worked. The chances are usually that some other factor enters into the equation. But if a man be set at a task until he loathes it, or until he dreads the time of its return, then we bring in mental worry, and with it speedily over-training. This suggests the best way to avoid the occurrence of such a condition, as well as indicating the remedy. A player should be given something new to think of every few days, not crammed all in a day with all the possibilities of his position, and then found fault with for neglecting half of them. He should be carried along by gradual steps, and should see some new
Diagram M. - Too early development. Yale team of 1887. A. high scoring team, but irregular in defense in November.
opportunity often enough to encourage him. Then, when he begins to show indication of having too much on his mind, send him over to coach the freshmen, or anything else that will amuse and distract him. Just as an instance of what an injudicious coach will do: There was at one of our large universities a coach who had a substitute quarter playing occasionally upon the 'Varsity, but more frequently on the scrub, or second eleven side. The sides had separate signals. It occurred to this coach, late in the season, to give each team an entirely new set of signals in addition to the set it already possessed. The substitute quarter was given both new sets, - he already had mastered the first two. Three days later, in the first ten minutes of a match, the regular quarter was laid up, and the substitute quarter went in. He was told which of the four sets the team was using, and for a few minutes did well. Then suddenly he stopped, rushed over to the captain, and said, "I can't remember a single signal ; I'm no use," and it was two weeks before the boy was really himself again. This was simply a case of mental worry. A conscientious man will go fine much more easily than the stolid, indifferent player, for the former takes all fault-finding to heart, and treasures it up until he becomes discouraged, and fairly on edge with nervousness. A coach should bear this in mind, and when he wants to make an example he will be wise if he select one of the stolid kind who can stand it, and not use the whip too freely in public upon some high-strung chap, who frets under even a light rein.

How to Diagnose. The first indication of over-training usually appears in a dullness in the eye and manner, while the nerves are still very sensitive. Then there is a loss of appetite and inability to sleep or even to rest, and the man begins to go off rapidly in his play. A loss of weight is usually a very early symptom, too, and for this reason the men should be put on the scales twice a week regularly, and suspicious cases oftener. As soon as the case is diagnosed as even doubtful, the man should be given a rest and freedom from care and worry, just as indicated later in this chapter for sleeplessness. A day or two may set him

Diagram N. - Yale team of 1891. Most successful and steady development.
straight, and if so, the coach is fortunate. If not, then his place should be at once filled for a week, if the time of the season admits. If it be on the eve of an important game, compromise measures are, of course, necessary. If the man must play, he may lave his appetite pampered, - may have a little champagne with his meals, and be given as little to do as is consistent with the absolute needs of the team. When he is not in uniform, get him away from the men and give him all the outside entertainment possible. Send him to the theatre, or anywhere else that will divert him.

The Agent of Repair. Sleep, the agent of repair, is one of the most important needs of the football player. And attention to the proper securing of undisturbed rest is one of the most serious problems that sometimes, late in the season, faces the coach. During the early weeks of training sleep comes naturally and easily to the player, and usually throughout the season to the majority, with, perhaps, the exception of the night before the big game. But there are occasionally cases of over-work, or more properly over-worry; for the captain and some important player like the quarter-back have too much on their minds in the way of responsibility to be free from trouble of this nature. It is a fair criticism against the game that so much should devolve upon the captain or quarter, but the strain is temporary and is surely a strong developer of character. But the coach must consider, not the question of sparing the man the worry, but of keeping him in as good physical condition as possible under it. As to the team in general, the law must be laid down with decision that during the period of training the men must keep regular hours. Some believe in nine hours sleep at least, but eight hours will answer if it be always secured. From ten o'clock to seven $o^{\prime}$ clock are good limits, and no football man should be seen out of his room after ten. The night before a game the team can be allowed to stay up a little longer, to insure their speedy sleep.

Care of the Over-Trained. Now for the men who are over-trained or over-worried. It is not always easy to know whether a man is getting his proper sleep. Many a captain

Diagram O. - This curve shows the usual physical condition so far as injuries are concerned; not the general condition, but merely number of men laid off with injuries.
and conscientious player has answered up cheerily as to his sleep, rather than to allow any one to suppose that he is not all right. This spirit is a good one, but the player should remember that if the coach can help him, he ought to confess to him privately all his troubles. It is not difficult for the coach to secure such an understanding in confidence with his men. There is no necessity that the whole team shall know if a man is not sleeping well, but there is a great necessity of the coach's knowing it and acting upon that knowledge. As to the remedy or rather remedies. In the first place, drugs, although they have been resorted to by some teams under urgent necessity, are never to be countenanced until the man is in such a condition that he passes from the hands of the coach into those of the physician. Hence drugs will have no part in this chapter. The first thing to be attempted is the removal of the cause for worry. If this be impossible, it can almost always be greatly lessened by judicious moves. If it be the case of the captain, an especial effort should be made in a private conference between him and the coaches, to show him that his fears are groundless. The truth of the matter is that by the time this trouble of sleeplessness comes upon a captain, the season is usually so near its end that the coaches are justified in assuming the entire burden of responsibility, and so encouraging the captain, even at a slight stretching of their consciences, in the expression of belief in the team's probable success. Having done everything possible so far as the mental condition of the man is concerned, it is well to try one or two simple methods of inducing sleep. Beer or ale before retiring, in the case of a man who has been accustomed to it when out of training, will often bring about the desired result. Another very efficacious plan is to have the man eat nothing but meat at his evening meal, and then half an hour before bedtime drink a glass of hot water. Light work in the afternoon and an evening walk of half an hour or so will sometimes serve when everything else fails. Above all, no evening football talk or football reading, but some entertaining book or conversation with people not interested in football.

Cleanliness. Cleanliness comes next for our consideration. It may seem a strange term to apply to the condition of men who literally wallow in the mud upon occasion, but it is, nevertheless, thoroughly applicable, for the man in training should especially keep his skin in good condition. Too much tubbing is a mistake, but with a good sponge bath and a single tub, the football man can daily be as pink and glowing as possible. There is no need to dwell upon methods. All sorts of showers are common nowadays, and with the sole caution not to overdo the pleasure, we can leave this agent of health, and the final consideration of the subject.
RECAPITULATION OF EIGHT ENGLISH TRAINING SYSTEMS．

| SYS－ TEM． | Sleep． | Exercise． |  | Diet． |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Solids． |  |  |  |  |  |  |  |  | Fluids． |  |  | Stimulants， etc． |  | Substi－ tutes． |
|  |  |  |  |  |  | Vege | ables． | ส゙ี |  |  | Bre |  |  |  |  |  |  |  |
|  |  |  |  |  | 尝 | $\stackrel{\text { 会 }}{\substack{0}}$ | $\begin{aligned} & \text { 0. } \\ & 0 \\ & 0 \\ & 0 \\ & 0 \\ & 0 \end{aligned}$ |  | 葱 | $\stackrel{\stackrel{\rightharpoonup}{\circ}}{\square}$ |  | $\begin{aligned} & \text { ٌ } \\ & \text { だ } \\ & \text { だ } \end{aligned}$ | $\begin{aligned} & \dot{\oplus} \\ & \stackrel{\text { N }}{0} \end{aligned}$ | $\begin{gathered} \dot{\boxed{0}} \\ \text { M } \end{gathered}$ | \％ | $\underset{\text { ® }}{\substack{\text { E }}}$ | $\begin{aligned} & \text { O} \\ & \text { Eू } \\ & \text { E} \\ & \hline \end{aligned}$ | ĖE |
| $\begin{gathered} \text { No. } \\ 1 \end{gathered}$ | $\begin{gathered} \text { Hrs. } \\ 9 \end{gathered}$ | $\underset{2}{\mathrm{~K} \mathrm{ds}_{2}}$ | $\underset{1}{\mathrm{Hrs} .}$ | $\begin{aligned} & \mathrm{Kds} . \\ & 2 \end{aligned}$ | $\underset{0}{\mathrm{~K} d s .}$ | $\underset{1}{\mathrm{~K} \mathrm{ds}_{1}}$ | $\underset{1-5}{\mathrm{~K} d \mathrm{~s} .}$ | $\begin{array}{r} \mathrm{Kds} . \\ 1-3 \end{array}$ | $\begin{gathered} \mathrm{K} d \mathrm{~s} . \\ 0-1 \end{gathered}$ | $\underset{0}{\mathrm{~K} \mathrm{ds} .}$ | Stl． | Dry． | 0 | $\underset{2}{\text { Pts．}}$ | Cups． 1－2 | es． | 0 | $\begin{gathered} \text { Pints. } \\ 0 \end{gathered}$ |
| 2 | 9 | 2 | 1 | 2 | 0 | 1 | 1－5 | 1－3 | 0－1 | 0 | ＂ | ＇6 | 0 | 1 | 1－2 | ، | 0 | 0 |
| 3 | 9 | 2 | $1 \frac{1}{4}$ | 2 哥 | 0 | 2 | 2 | 3－d | 1 | 1 | ＂ | ＂ | 0 | 2 | $1 \frac{1}{2}$ or 2 | 2 | 0 | 0 |
| 4 | 9 | 2 | 114 | 2 号 | 0 | 2 | 2 | 3－d | 1 | 1 | ＂ | ＂ | 0 | $1{ }^{1}$ | $1 \frac{1}{2}$ or 2 | 1 | 0 | 0 |
| 5 ， | 8 or 9 | 3 | 4 or 5 |  | 0 | 0 | c | 1 | 0 | 0 | ＂ | ＂ | 0 | $\frac{1}{3}$ | 1 | 0 | 0 | $\frac{1}{2}$ |
| 6 | 8 | 3 | 4 or 5 | $2)$ | 0 | 0 | 1 | 0 | 0 | 0 | － | ＂ | 0 | $1 \frac{1}{2}$ or 2 | $\frac{1}{2}$ | 0 | 0 | $\frac{1}{2}$ |
| 7 | 10 or 11 | 3 | 4 | 6－rl ${ }^{\text {cun }}$ | $2-\mathrm{b}$ | 0 | 3 | 1 | 0 | 0 | ＂ | ＂ | 0 | 3 or 4 | 0 | 3 | 0 | L |
| 8 | 8 | 3 | 3 or 4 | a | 0 | 3 | 12 | 2 | e | f | Brown | ＂ | $\underset{\mathrm{g}}{\mathrm{ad}} \mathrm{lib}$ | 1 or 12 $\frac{1}{2}$ | 2 | 2 or 3 | k | L |

（a）Any kind of wholesome meat．（b）Conditionally．（c）Not stated．（d）Allowed．（e）Condemned．（f）Allowed．（g）At night． （li）Quantity not stated．（i）Some colleges allowed．（k）Allowed．（L）Quantity not stated．

TABLE SHOWING THE DIGESTIBILITY OF CERTAIN ARTICLES OF FOOD.

| Article of Food. | Mode of Preparation. | Time of | igestion. |
| :---: | :---: | :---: | :---: |
| Meat. |  | Hours. | Minutes. |
| Beef | Boiled. | 2 | 45 |
| Beefsteak | Broiled. | 3 | 0 |
| Beef, lean . | Roasted. | 3 | 30 |
| Beef, with mustard and veg- tables | Boiled. | 3 |  |
| Beef and vegetables . . | Fried. | 4 |  |
| Beef, hard salt . | Boiled. | 4 | 15 |
| Lamb . . . | Broiled. | 2 | 30 |
| Mutton . . . . | Boiled. | 3 | 0 |
| Mutton . . . . . | Broiled. | 3 | 0 |
| Mutton . . . . | Roasted. | 3 | 15 |
| Veal . . . | Broiled. | 4 | 0 |
| Veal . | Fried. |  | 30 |
| Pig, sucking - | Roasted. | 2 | 30 |
| Pork, steak . . . | Broiled. | 3 | 15 |
| Pork, salted . . . . | Broiled. | 3 | 15 |
| Pork, salted . . . . | Boiled. | 4 | 30 |
| Pork, salted . . . | Fried. | 5 | 15 |
| Venison . | Broiled. | 1 | 35 |
| Tripe • . | Boiled. | 1 | 0 |
| Gelatine - . . . . | Broiled. | 2 | ${ }^{0}$ |
| Heart . | Fried. | 4 | 0 |
|  |  |  |  |
|  | Boiled. | 2 | 25 |
|  | Roasted. | 2 | 30 |
|  | Roasted. | 2 | 30 |
|  | Fricasseed. | 2 | 45 |
|  | Broiled. | 4 | 0 |
|  | Roasted. | 4 | 0 |
|  | Roasted. | 4 | 0 |
|  | Roasted. | 4 | 30 |
| Fish. |  |  |  |
| Trout . | Boiled. | 1 | 30 |
| Trout . . . . . | Fried. | 1 | 30 |
| Cod - . . . - | Boiled. | 2 | 0 |
| Oysters . . . . . | Raw. | 2 | 55 |
| Oysters . . . . . | Roasted. |  | 15 |
| Oysters ${ }_{\text {Flounders }}{ }^{\text {a }}$. . . . | Stewed. | 3 3 | 30 30 |
| Salmon, salted . . | Boiled. |  | 0 |
| EgGs, etc. |  |  |  |
| Eggs . . | Raw. | 2 | 0 |
| Eggs . . . . . | Roasted. | 2 | 15 |
| Eggs . . - | Soft boiled. | 3 | 0 |
| Egqs . . . . | Hard boiled. | 3 | 30 |
| Milk - - ${ }_{\text {Mik }}$ - • | Raw. | 2 | 15 |
| Milk ${ }_{\text {Mutter }}$. . . . | Boiled. | 2 3 3 | 0 30 |
| Clittere . . . . . . . | Melted. | 3 | 30 |
| Soups, ETC.Barley brot |  |  |  |
|  |  | 1 | 30 |
| Hash (meat and vegetables) | Warmed. |  | 30 |
| Soup (chicken) . . . | Boiled. | 3 | 0 |
| Soup (mutton) . . | Boiled. | 3 | 0 |
| Soup (beef) . . | Boiled. | 3 | 0 |

TABLE SHOWING THE DIGESTIBILITY OF CERTAIN ARTICLES OF FOOD. - Continued.

| Article of Food. | Mode of Preparation. | Time of Digestion. |  |
| :---: | :---: | :---: | :---: |
| Farinadeous Substances. |  | Hours. | Minutes. |
| Bread (wheaten) . . . | Baked. | 3 | 30 |
| Beans . . | Boiled. | 2 | 30 |
| Rice . . | Boiled. | 1 | 0 |
| Sago . . . | Boiled. | 1 | 45 |
| Tapioca . | Boiled. | 2 | 0 |
| Vegetables. |  |  |  |
| Potatoes . | Roasted. | 2 | 30 |
| Potatoes . | Baked. | 2 | 30 |
| Potatoes . . . | Boiled. | 3 | 30 |
| Parsnips . . . . | Boiled. | 2 | 30 |
| Carrots . . . . | Boiled. | 3 | 15 |
| Turnips . | Boiled. | 3 | 30 |
| Cabbage . . . . . | Boiled. | 4 | 30 |
| Fruits. |  |  |  |
| Apples (sweet) | Raw. | 2 | 0 |
| Apples (sour). . | Raw. | 2 | , |

## CHAPTER XI

## SUGGESTIONS OF POSSIBLE FAKES AND BLUFFS: HOW AND WHERE THEY MAY BE EMPLOYED

The Plan Explained. It is not intended in this chapter to give a complete scheme for the employment of different fakes, nor is it intended to furnish diagrams of plays. The object of the chapter is, as its name implies, merely to give suggestions to the coach of the various lines along which he can successfully conduct strategic operations. The ingenuity of the coach, and his knowledge of the capacities of his team, will enable him to select the right suggestion and clothe it with the proper movement.

As to the Value of Different Ideas. It must not be understood that these suggestions are offered as novel movements, or that they are especially commended. Many of them are of doubtful value, and some of them might easily be conducted in such a manner as to jeopard the safety of the ball. They should only be regarded as possibilities which may, in some cases and in certain directions, be found to be peculiarly adapted to the abilities of the team.

The doubtful value of many of these suggestions makes it unnecessary to caution the coach against using too many fakes and bluffs in the work of his team. If one or two of them are employed, it is usually all that the team will need, or that it would be wise to give them. Their value lies not alone in themselves, but in the train of thought which they stimulate. Ideas in football are always at a premium, and some new ideas may come to the coach from a hasty perusal of the following suggestions : -

A Line Man Brought Back. (1) Calling a line man back, with the apparent intention of heading an interference, and letting the play eventuate in a totally different manner.

For example, if a guard was called back to head a heavy interference around either end of the line, the positions being taken exactly as if the play was to move around the farther end from the side from which the guard was withdrawn, it might then be a wise plan to start the play in that direction, and have it eventuate in a double pass, and a sharp dive through some part of the line.

An Accidental Start. (2) Make an apparently accidental start of the entire interference before the ball is snupped, and have a reprimand from the quarter; then, without any change of signal, let the ball come back, and a totally different play eventuate.

The value of such a bluff lies in the readiness of the average player to follow his instinct as against his coaching. The fact that the play has already started toward a certain point in the line, and that the quarter-back has reprimanded the players and moved them back to their original positions, without any change of signal, leaves the inference reasonably sure that the same movement is to take place as soou as the ball is snapped. This interference might be strengthened by the quarter-back, immediately after his reprimand (which need consist of nothing more than "Steady, fellows, don't give the play away!"), calling out to the team, "Same signal." This might emphasize the inference in the minds of the opponents, and more effectually lead them astray.

An excellent play to embody this suggestion would be a double pass, or any play with a bluff movement, or demonstration toward a part of the line where the runner does not go. In that case the demonstration would be all the more deceptive, in view of the accidental start-off.

The Quarter-Back Changed. (3) Have some man change with quarter-back for a single play, and let it appear that quarter is to do some special thing.

For example, if near enough to the opponents' goal to make a drop-kick possible, let the quarter-back go up the field on the first down, as if to make the trial. Let the formation be for the protection of a drop-kick, but let the ball be passed quickly to a half-back on the side for a quick dive
through the line. The sending of the quarter-back up the field might be a useful adjunct to a good "fake kick" which had worked well two or three times, but which was now being stopped by the opponents becoming familiar with the movement.

Quick Scrimmage Kick. (4) Study the possibilities of an unexpected scrimmage kick.

There are various ways in which this might be employed. The centre rush, on some word signal from the quarterback, might rise from his stooping position, as if disgusted at something, and kick the ball between his opponent's legs, or on either side of his opponent where a favorable opening may occur. The ball must go ten yards unless stopped by an opponent. The entire team would then be on-side, and should make an instant rush for the ball. Such a play should only be tried, of course, when the attendant risk of the loss of the ball may be wisely entertained.

Another method would be to practise an easy short snap back toward the quarter, which would not move the ball more than a foot; the quarter, being ready upon the instant, could then kick the ball directly against the leg or body of an opponent. Properly, the ball would then belong to any one of the twenty-two men who first dropped upon it. In other words, it would have been put in play according to the rules, having touched a third man, as provided in Rule 21. The opponents would have lost their prior claim to drop on the ball by virtue of its having already touched one of their number. A play of this nature might easily be worked up so as to be tolerably effective on a third down, when the distance to gain was difficult, or when the regular punts had, in two or three instances, been blocked by opponents. Care should be taken in the event of the first or second method of putting the ball in play, to caution the centre rush not to fall on the ball in a scrimmage, as he is prevented from touching it until it has touched some other player of his side.

Ball Put in Play by a Guard. (5) Have the ball put down unexpectedly by the guard, who puts it in play without signal on a quick line-up.

If the opponents are canght napping in this, you may be able to put the ball in play one point nearer the end of the line, and so bring off a round-the-end play without having to travel so far to circle the line. If the opponents move over, the play should then be quickly sent to the long side of the line, where you will have one extra man at your disposal to pocket the end or tackle.

An Unexpected Punt. (6) Study the possibilities of an unexpected kick from an ordinary running line-up, the player. kicking the ball immediately behind the line with a sideways kick, and at least one man going down the field on-side.

A very effective way of making this kick is to have it ordered from the side of the field, and the punt directed on an oblique toward the other side. The on-side runner can then be well started across the field before the punt is delivered, and the moment he sees the punt made he can start immediately forward toward the point where the ball is to drop. The value of these unexpected kicks is not alone in themselves, but in the added value which they often give to the rushing game by reason of the uncertainty of the opponents as to whether the play is to be a run or a kick.

Second Pass and Kick. (7) Try a second pass, with the last receiver kicking the ball well over to the side of the field five or ten yards ahead of the line of scrimmage; the entire team to follow the ball quickly, and the kicker to put his team on-side.

The probabilities in this manœurre would be that the unexpectedness of the second pass, followed by the unusual feature of a kick, would so far disconcert the opponents that the kicker would be enabled to go straight down the field on the opposite side from which the ball was kicked, and with such a slight advance of the ball as five or ten yards he would be able to put his team on-side. The play could only properly be attempted on the side of the field (say ten yards from the side lines), and the kicker should then go down the short side of the field, while the rest of the team move as rapidly as possible toward the point where the ball will drop.

Making Exchanges when on the Offensive. Remember that exchanges on the offensive are always wise.

For example, if by sending your full-back ten or twelve yards up the field for a kick, you can compel your opponents to send an extra back up the field to receive the expected kick, the advantage is clearly with you in any subsequent running play. The idea may be more clearly grasped by assuming that the teams are composed of only one man each, and that your one man who has the ball is trying to carry it down to the goal posts. It would be a comparatively easy matter for him to dodge his opponent. Now, by enlarging the teams to two men, it might still be easy, although the danger that the second man may fail in blocking his opponent increases the difficulty of the runner passing the line of two men. This same difficulty is increased by the addition of every extra man to the team. Hence the rule is that as every man who fails to block his opponent jeopardizes the play, it follows that the greater number of men in the game on each side, the greater the difficulty of advancing the ball by running. Hence when you have the ball, you can always afford to make exchanges, or "pair men off," if they keep each other out of the play.

Furthermore, by sending your kicker ten or twelve yards up the field (on a pretense of kicking), it is often possible to bring him into the play at some later point in its development, where he can do effective service. The opposing back, however, who was sent up the field to receive the punt, is too far removed from the point of action to be of any service until the runner has made a substantial gain.

Diagonal Blocking. (9) Diagonal blocking is the most effective of all methods for making an opening in the line.

Hence make your assignments in every play, not on the basis of the man taking the opponent whom he can first reach in the line, but rather the opponent whom he can strike on the most obtuse angle from a line at right angles with the rush-line.

Shifting Positions. (10) Wherever you can find a man who can play two positions, see whether it is not possible to emphasize some bluff by shifting him especially for this play.

In other words, if the runner were to go through the right side of the line, but the demonstration were to be made toward
the left side of the line, it might be possible to shift some player from the right to the left side of the line, under preteuse of making the left side a trifle stronger, and this slight movement would make the opponents more ready to start to the defense of that side of the line when the bluff demonstration was made.

As to Unexpected Kicks. (11) Remember that unexpected kicks should not be ordered when an extra back has been sent up the field.

One point of advantage about an unexpected kick is that it can be directed to a part of the field where there is no man located to receive it. It is a well-attested fact that a fullback who cannot get under the ball before it touches the ground is in more or less danger of having the ball touch some part of his person, in which case he stands a good chance of losing it altogether, or of being jostled by the opposing players while the ball is bounding along the ground, during which time the opposing kicker may be coming down the field to put his team on-side. An unexpected kick should, therefore, never be played from a running line-up on the third down, when an extra back has been sent up the field. It may always be played on a second down; or on a third down where the running line-up so far deceives the opponents that the extra back is not sent away from the line.

A Long First Pass on First Down. (12) When the ball is secured from opponents on a fourth down, near the side lines, let your full-back advance slowly, as if doubtful whether the ball had been regained or not; on a quick line-up let the quarter make a long pass to the full-back, who will be out toward the centre of the field and five yards behind the quarter.

A very good play can be drawn up on this suggestion. It would be wise to arrange some signal on the third down between the quarter and full back, whereby there is a mutual understanding that the play is to be ordered immediately if opponents lose it upon the next down. There should then be a quick line-up, and the ball snapped before any one could have time to notice that the full-back was not in his place. The full-back, in the mean time, would be feigning unusual dullness, and advancing in a hesitating manner, as if uncer-
tain as to whether his side had regained possession of the ball or not. The team being on the side of the field, the full-back would naturally be a little toward the centre, and in coming down to rejoin the team he might move down more directly toward the centre of the field, as if about to question one of the officials.

In the event of an extra back having been sent down the field, this extra back might be used as a principal interferer, or he might immediately rejoin the team as soon as it was seen that the opponents had trusted to gain their distance and had not resorted to a kick.

Side Line Possibilities. (13) Study up the strategic possibilities of the side line.

When the ball is near the side line is a possible time to play a long criss-cross, the runner going down the short side of the field, but the first movement being toward the long side. It is well to have a special play to use when advantageously near the side line, the ball criss-crossing toward the line.

## A Quarter-Back Kick. (14) Have a quarter-back kick

 to side of field.There are situations during the game (as, for example, when inside opponents' thirty-five-yard line) when it is most desirable to retain possession of the ball on a third down, and when the distance to gain is too great to make it prudent to attempt to rush the ball. At such times, the line-up being for a running play, it is possible for the quarter-back, working from a position near one side of the field, to kick toward the other side with an advance of ten yards, and the whole eleven, moving rapidly after the ball, will often be able to secure it from the opposing full-back. It must be remembered that the three backs behind the quarter are all on-side when he kicks, and if the tackle or end can come sharply round behind the quarter, as if to join an interference around the other end, he will be in just such a position as will make him on-side when the kick is made, while not retarding in any way his arrival at the other side of the field. The movement of the three backs should be across the field, without advancing forward until the kick has been delivered. A
sharp oblique may then be made toward the probable locality where the ball will descend. Care should be taken that the end or tackle should circle well out so as not to disconcert the kicker. Of course, in this play the quarter-back would endeavor immediately to put his team on-side.

Fake Kick and Dive Play. (15) Worli up a good fake kick with the runner going on a quick dive through the tackleguard hole.

This is always an easy play to devise and a very successful one to work against some teams. It is astonishing to note with what success fake kicks are often operated against even the strongest opponents. One such play should be in the category of every eleven. It should be thoroughly rehearsed, and given a simple, plain signal, and one which does not seemingly indicate any unusual play. It would be much better if the signal could be the same as for a punt, with some slight disguise or accompanying hand or arm signal on the part of the quarter-back, which should indicate that it was not a punt in reality.

Fake Kick and Full-Back Run. (16) Send the fullback up for a punt, and let him, instead of kicking, rush the ball, moving well out on a wide circle around the end of the line, and passing on either side of the opposing end, if he has drawn the end well out.

This is always an easy play to work up, the only important point being the interference given to the runner. It might be a wise plan, if the run was to be attempted around the right end of your line, to draw your left tackle back to join the immediate body guard in front of the full-back, who are supposed to protect him from any man who has broken through the line. Your left end would then come in from his extreme position and stand where he could slightly bodycheck the opposing tackle before going down the field under the supposed kick. This arrangement would give your fullback a direct interference of at least three men, with the quarter-back as a possible fourth.

Overhead Pass. (17) Work up an overhead pass:-the quarter pretending to pass to the half-back, but throwing the ball over his head to an end rush who has sneaked well out.

It may be claimed for this play that when successful it is almost worth a touch-down; when not successful it need not be attended with great risk or loss. The assignments should be so made that all protection may be afforded to the ball in the event of the end rush failing to catch it.

A Pretended Fumble. (18) Let the full-back make a pretended fumble of the ball.

This is a "last resort" play, to be used near the end of a game when five points extra would not win the match, but six points would. The full-back goes up for a drop-kick, and on receiving the ball holds it just long enough to draw the opposing end and tackle on his left side well down upon him. The guards and other side of line are blocked, as usual. The end and tackle come straight down. Your own right end, starting sharply on the snap, circles behind the full-back and receives the ball from him by a short backward pass, just as the end and tackle have reached him. They will naturally be in front of him in order to reach his kicking side and block the path of the ball. The end on receiving the ball circles the other unguarded end.

The Concealed Ball. (19) The trick of the concealed ball.

This is a suggestion which offers some little field for the ingenuity of the strategist. It is a trick which has been worked very successfully on one or two occasions in the past. It was a favorite line of operations with a well-known Yale player less than a dozen years ago. By his ingenuity he had planned two or three successful mass movements where the opponents, unless exceptionally sharp-sighted, completely lose the direction of the ball, and the play, which was usually quite a slow one, was worked with deadly effect against even the strongest opponents.

Pocketing an End. (20) In a formation for a close attack against tackle on one side of the line, let the pass be made unexpectedly to a runner who swings out from his position on the other side of the centre and circles behind the mass and around the end.

The success of this play is wholly dependent upon drawing in the end by the repeated attacks at the tackle hole.

The formation may be of a mature which makes it quite difficult for the end to readily see what is transpiring beyond the centre of the line; the runner coming around. very sharply and receiving the ball almost at full speed, is under such headway that, unless the end has kept well out of the pretended attack, he will not be in a position to successfully tackle the rapidly moving runner. The possibilities of work along this line are unusually promising.

Right-Angling an End. (21) Worl up a series with a formation having your right end never less than five yards outside his opponent.

Several interesting plays may be made from this formation. A round-the-end play may be attempted, in which you would be able to direct an attack upon the opposing end from exactly opposite directions at the same time. In other words, he would have to look out for the on-coming interference and the runner, and also keep track of the movement of his opponent, who is five yards outside of his position and moving towards him from the opposite direction. The best result would probably be effected if the outside end met his opponent just before the interference reached him. He could then disconcert him just at the decisive moment, when the end was preparing to smash the interference.

Another Outlet. Another outlet in such a series would be a long pass to the right end rush, either by the quarterback direct, or by the left half-back receiving the ball from the quarter and starting around behind the right side of his own line to make the long pass. In this case the full-back and right half-back would be assisting the right guard and tackle in blocking for the left half-back when he turned to make his pass.

In the event of the opposing end rush following your right end out to the side of the field, this series of plays could not be worked, but you could then successfully effect other operations, and the withdrawal of these two men, as you are acting on the offensive, would be to your, and not your opponents' advantage.

A Quarter-Turned Attack. (22) Try a line-up with all the men facing in a wrong direction, and with a sharp
quarter turn to the right or left the instant the ball is put in play.

This is of minor value, but there are a few movements in which it may be effectively employed with no risk.

A Quarter-Back Run. (23) Let the quarter run with the ball.

In a play of this sort the ball should be passed immediately to one of the backs who is advancing toward one side of the line as he receives it. Immediately upon receiving it, he swings round upon one foot with his back to the line, using the foot which is nearest to the quarter-back, which thus enables him to face the quarter-back the entire time. The quarter-back has followed up his pass by advancing himself, and as the half-back turns, he takes the ball from him and tries to circle the end, keeping well out on a long turning.

Another Way. There are two ways in which this play may be tried with perhaps equal success. The ball may be passed to the left half-back, and the other two backs may make a bluff attack upon the right side of the centre of the line, the left half-back moving almost forward, and with a very little movement toward the centre from his position. Another method is for all three of the backs to move rapidly toward the tackle-guard hole on the left side of the line; the right half-back, being the last man, receives the ball, and turns in the same manner as described, passing to the quar-ter-back, who circles the left end of the line.

Second Pass in a Moving Interference. (24) Work a double pass from one man to another in a heavy interference just before it reaches the end of the line.

This is always a deceptive manœuvre, unless the opposing end rush is exceedingly watchful. He has clearly seen the first pass and located the runner. He finds this runner is well inside of his interferers, and running behind them. Naturally the end rush is tempted to keep inside of the interference group, and seize the runner from the side. The runner should make the pass to the man on the farthest outside edge of the group of interferers, and the pass can be made just before he is to be tackled by the end rush. The man who receives the pass, and who is moving at the full
speed of the interference, is then protected by the interfering group from the end rush, and if a wide circle of the field is made, and he is a good runner, the chances are that he will be able to pass the half-back, who is moving out rapidly to support the end.

Two Operations in One. (25) Combine two styles of play in one operation.

Or, in other words, under cover of óne familiar form of attack make another familiar form of attack. For example, if you have a strong interference around the end, which is headed by some heavy rusher who is drawn back from the line, let there be a criss-cross incorporated with this play, by which the back who is nearest to the end which is circled shall receive the ball from the runner, and with the interference still moving on around the end, let him make a quick dive directly through the line in front of him. This is one of the most successful methods of bringing off a criss-cross. It seems to combine in one play the advantages of the quick dive and the criss-cross proper, and although less brilliant than the long criss-cross, with the runner circling the opposite end, it is more productive of gains in the long run, and may be repeated many times during a game.

A Running Kick. (26) Practise running kicking and study its possibilities.

There is really a great opportunity in this direction, and a mine of unused wealth awaits the enterprising coach who will develop running kicking to its fullest extent. There are a great many times when a runner has passed the critical point in the line, and is sufficiently free to enable him to kick the ball. At such times it may be questioned whether it would not be an excellent policy to do this, and endeavor either himself to regain it, or to put his team on-side. A good opportunity for such a play would be where an end rush had been circled on a very long movement out toward the side of the field, and an opposing line back was rapidly moving across the field with every possibilty of intercepting the runner when he turned in circling. It might be easily possible at such a time for the runner to make a running kick over the head of the half-back and also of the full-back, who
would probably have advanced to a point very close to the runner's position. The runner, with his interference, might then, keeping straight on, have an excellent opportunity of regaining the ball.

Deceptive Line-Up Attitudes. (27) Encourage the players to certain deceptive false motions, calculated to deceive the opponents as to the direction of the play, or as to the moment when the ball is to be snapped.

The effect of this will often be to slow up or rattle the opponents. Very much may be accomplished by taking advantage of an opponent's weakness and inducing him to start before the ball is put in play. It is easily possible for clever players to cultivate such deceptive movements as shall greatly mislead the opponents at critical times.

A Fake Kick Criss-Cross. (28) Work up a fake kick criss-cross.

This is a comparatively unused and very promising style of play. It will be necessary to work the fake kick two or three times before trying the fake kick criss-cross. Make the interference as heavy as possible for the second runner, and let this interference go to its work at the very beginning of the movement. There need be no special demonstration to help the first runner.

## CHAPTER XII

## WHEN ACTING AS AN OFFICIAL

Future of the Sport in Hands of the Officials. The very existence of a sport like football is dependent upon satisfactory rulings by officials. The future of the game is really almost as much in their hands as in the hands of the legislators and the players. It requires a man of the highest character, having a special knowledge of the game, to make a satisfactory referee or umpire. In fact, the way in which an important match is conducted, and the effect upon both players and spectators, depends upon a judicious selection of these two arbiters. The linesman is, of course, an important man, but has far less of the game in his hands than the other two.

Learn the Rules. A referee or umpire should thoroughly learn the rules. He must not only be familiar with the wording, but he should also be posted upon the derivation of the rules and (in a measure) their history, in order that his interpretation of them may be based upon a correct knowledge of the reasons why the rules were made. He should also be familiar with the location of the rules in the book, as often in a game a captain may demand a reference to the rule, and an official who can turn at once to any rule without hesitation has made a long step towards securing the confidence and respect of the players whose game he is conducting.

Learn the History of the Rules. An official should acquire his knowledge not alone from the rule-book and the watching of games, but he should also read up the history of the sport and make himself master of that history. He should then practise with his knowledge, just as a player practises to acquire skill. An official should act in the daily play frequently, and from this learn the following points.

Learn the Players' Interpretation. He should learn the players' interpretation of rules, for the players' interpretation may differ from the interpretation of the legislator and of the official. It may be a hard thing to say, but it is nevertheless true, that players learn various ways of coming very close to an infringement of a rule without - in their minds, at least - actually breaking it. A referee or umpire who is not familiar with this feature will find himself wholly incompetent to pass judgment when, in an important match, he is called upon to follow the play closely.

He should find out, also, what the natural action of the player is. That is, what he will do under certain set conditions. He will learn, also, what fouls are most apt to occur, and the points at which these take place.

The Referee. The duties of the referee are comparatively simple. Not but that he has enough to attend to (the additional duty of watching the play in the centre, looking out for runs by the quarter, or forward passes, having added somewhat to his work), but, as a rule, all the decisions that, he has to make are questions of fact regarding the position or the progress of the ball itself, while the duties of the umpire involve a much more difficult element because there is but one ball, and there are twenty-two players, and the umpire has the duty of judging the actions of these twentytwo players.

Cannot Deliberate when on the Field. The umpire or referee who is not thoroughly familiar with all the constructions that may be placed upon the rules is not competent to decide clearly upon the merits of the case on the field. No matter what his interpretation of the rule may be originally, he should have had all the various constructions brought before him, and should not be obliged to deliberate when on the field.

Position to Occupy when Watching the Play. The referee can stand in almost any position and satisfactorily follow the ball. But he should make it a point to give the umpire the preference, that is, to allow the umpire to stand where he can best see the ball, while he (the referee) takes up a position which will assist the umpire to thoroughly
cover the field. The best mmpires find it advantageous to stand facing the side which has the ball, and approximately in front of the man putting the ball in play. From this position the umpire can see the work in the centre in the way of holding, and can also move quickly out to the point where the line is assailed, and be in a fair position to judge of the effect as well as the making of any fouls which occur in the line of the progress of the ball.

Pay no Attention to Remarks and never try to Even Up. An umpire should thoroughly disassociate himself from any consideration of the two sides so far as personal feeling goes. He should never, under any circumstances, allow himself to be affected by what the players or the spectators say, and he should, under no circumstances, endeavor to even up any decisions. He should have but one thought, and that the strict fulfillment of his duty, no matter which side it affects.

Don't be too Technical. But no umpire should enter a game or should conduct a game, under the impression that every technical violation of rule should be penalized. As one of the best umpires in this country has said, there is probably never a play made on the field without some violation of a rule which could be discovered by a too particular official. A man's foot may be a half inch off-side. The centre rush is very apt to have his head over the ball. A thousand and one things which make no difference whatever in the result and are wholly without intent to defraud or take advantage, may occur; they would allow ample opportunities for calling fouls to an umpire whose business was not to conduct the game, but to find fault. Hypercritical officials do more harm than good.

Despise and Disgrace the Foul Players. But the man who has the interest of the game at heart, who wants to see fair play, who hates the foul player as he hates poison, and who goes even farther than the rule provides if it is necessary for the prevention of unfair tactics, is the kind of man to bring the game up, and the man who will see that both sides get justice. Such men are hard to find, but everything should be done to encourage them to act. The
effect of such men upon the education of players in this country cannot be too highly estimated.

Difficulties. The most difficult duty of the referee is undoubtedly to discover who has the ball when in a fumble a number of men drop on it and the pile is so dense that he cannot see the man in possession. The wise act for him in this emergency is to take away the men one by one, beginning with those whom he can see have no hands on the ball. In this way he will bring it down to two or three, and it is not then difficult to tell from the position of the arms of these men, after he has reached the bottom of the heap, to which man the ball belongs.

It is also the duty of the referee to tell whether the kick is a punt or a drop-kick when a try-at-goal is tried and is successful. Some kickers in attempting a drop-kick catch the ball with the toe before it hits the ground, and this must be closely watched by the referee.

Both the referee and umpire must not only cultivate, but actually acquire, a total indifference to remarks made while they are on the field. Among the present day teams it is soldom that much is said in comment upon decisions. The practice of trying to bulldoze the umpire and referee has largely gone by. But there are persons in the crowd, and sometimes, we regret to say, on the teams, who, in the heat of excitement, express too forcibly their difference of opinion from that of the umpire or referee. The official should take no note of this, and remember that in times gone by, when he was a player, he had something of the same feelings, and possibly at times he expressed them.

Never Leave the Game without a Decision. But above all things, no matter what the provocation, an official should never leave a game until it is finished or forfeited. If there is a dispute over one of his decisions, he has not the right to throw up the place, but before he leaves the field he must decide the game, so that there can be no further claims of any kind save in the case of an Association game, where, by the constitution, an appeal is permitted regarding the interpretation of the rule.

There is nevèr any appeal, however, from a decision of
the referee upon a question of fact, and this should be thoroughly borne in mind by both officials and players.

Ground Rules. It is the duty of the officials to call the two captains together as long a time as possible before the game, and bring up the question of ground rules. It often happens that neither of the captains has reflected upon this matter, and the official has to make suggestions. This he should be fully competent to do, for he should have gone out on the field and looked it over, and know the necessity for each ground rule which may be proposed.

Proximity of Fence or Grand Stand. For instance, a grand stand or fence may be so near the goal line as to make a kick-out from behind the goal impossible. In that case a ground rule should be agreed upon making it perfectly fair for both sides, but insuring that the play will be carried on as it would be in an open field. The easiest way to adjust this is to determine a certain distance, say, for instance, five yards, and when the defending side secure the ball, or have the ball in their possession inside their own five-yard line, they are privileged to take the ball out to the ten-yard line and have it down there.

Out of Bounds. Again, it may be that the sides of the field are so arranged that it is not easily possible or wholly safe for the players to follow the ball when it goes out of bounds. In that case a ground rule should be made giving the ball to the opponents of the side that made the kick when the ball goes beyond the boundary. There is some question as to whether a ground rule should be made in this case providing that the ball shall become the property of the opposing side when it is kicked out of bounds as soon as it crosses the side line, whether it go into the crowd or not. Usually a rule is made that the ball is the property of the man securing it (provided he is on-side), so long as it does not actually pass the fence, or the line of the crowd, or strike an outsider. It is better, however, and less open to dispute, if the rule gives the ball to opponents the instant it goes out of bounds from a kick.

The referee must be sure to raise the question whether a blocked kick is to be governed by the same rules if the ball
goes out of bounds before it is secured. It may be decided either way, but must be settled always in advance.

Interpretations and Points Made by Captains. After all matters of ground rules have been gone over, the referee should bring up any questions likely to produce a misunderstanding in the rules, and should advise the two captains of his interpretation of these obscure points. He should also ask the captains to bring up to him any points that they wish to have discussed, and should notify them that on any questions not brought up at that meeting he will decide according to his own interpretation, without regard to any later discussions, that is, unless both captains are present at the later discussion, and it takes place before the players go on the field.

The reason for this is that it is always an awkward thing for a referee to hold anything like confidential relations with either captain. All points should be brought up and discussed with both captains present, or else they must be satisfied with the interpretation of the referee when the actual play happens.

Warning by the Umpire. When the referee has gone over his part of the work in this way, the umpire should discuss all matters likely to fall under his province, and finally the umpire should give the captains definite and decided warning regarding anything like unfair play or brutality. It is the duty of the umpire to make this talk a sound one, that shall impress the captains with the fact that nothing in the nature of foul tactics will be for a minute countenanced by him ; and that he will go even beyond the letter of the rules to see that offenses of this nature are promptly punished.

When the players come upon the field, the referee and umpire should call the two captains together, and the ground rules should be stated as they have been agreed upon before the play is started. The umpire should take occasion once more to reiterate what he has said about unfair play, and should ask the captains if they thoroughly understand, and have made their teams thoroughly understand, his attitude.

All this may seem like going to great lengths to eliminate
possible later discussions, but it is well worth while, and the game will be far more satisfactory not only to the players, but to the officials, if this line of policy is strictly carried out.

Linesman. Marking Distances. The linesman acts under the referee, and marks the distance gained or lost. It is customary for him to have an assistant, and one of the easiest ways to keep track of the distance is to have two canes joined together with a five-yard cord, and, when a first down is made, set one cane opposite the down, and stretch the cord tight in a straight line by the side line, and the other cane will mark the distance which must be made in the three attempts.
Bearing Testimony. All officials are obliged to do their best to see that all the rules are enforced, and whenever one official is asked to bear testimony in another official's province, he should be ready with a frank statement, and should not hesitate a moment to give his views.

Extraordinary Occurrences. There are some extraordinary occurrences which have happened in sections of the country where football has only just begun to make for itself a sound foothold, and which perhaps ought to be noted. There is no danger of such things happening where the game is understood and appreciated, as the public feeling is too strong to tolerate such exhibitions for a moment.

A case has arisen where a player has been disqualified by the umpire, and refused to leave the field. Fortunately, such an occurrence cannot happen on a team that has any appreciation for the sport, but an official who is likely to act in some of the remote parts of the country may have such a thing brought before him. There is but one thing for the umpire to do, and that is to give the captain of the offending side, even if he be the disqualified player himself, a certain limit of time for the player to leave the field, say three minutes, or less time if he prefers. If the player does not leave the field inside of that time, the umpire should advise the referee, and the referee should at once declare the game forfeited to the other side.

There is nothing specifically stated in the rules to cover
this point, and there are several other points which it would be superfluous to put into rules, which are made for gentlemen in the conduct of sport as gentlemen. All questions of this kind are covered by a point in the rules which makes the referee absolute in all cases not covered by the umpire, and the umpire is the judge of the conduct of the players. At such a time the referee must uphold the umpire strongly. In point of fact, the umpire would probably be upheld in himself declaring a game forfeited, but such a declaration is more in the province of the referee, and if he is a man of any character, he will see that every decision of the umpire is respected.

Calling the Game on Account of Darkness. Another point that may arise is the question of calling a game. A football game should not be called for any condition of the weather, but should be played, rain or shine. In the event, however, of a game having been started so late, or through accidents having been so prolonged as to make it impossible to finish it by daylight, it is the duty of the referee to call the game an unfinished game, unless some previous agreement has been entered into by the two captains. Every game, however, should be started so early as to make any chance of this event occurring impossible; there can be nothing more unsatisfactory than an unfinished match. For all this a referee ought not to let a game continue after it is so dark that he and the umpire cannot, by their inability to follow the operations on the field, be reasonably sure to make all their decisions correctly.

## CHAPTER XIII

## DIAGRAMS OF PLAYS

Explanation of the Diagrams. Before presenting the diagrams of the plays in this chapter, there must be a few words of explanation.

The team executing the play is drawn in outline, and the opponents by shaded figures. To avoid multiplication of detail, one or two of the opponents are omitted in each diagram, their positions being so far removed from the seat of action that they could not reasonably be counted upon to take any part in the immediate checking of the play before the line is pierced. None of these plays are carried beyond the passage of the line. The primary object is to get the runner through the opponents' line free and clear, with one or more interferers, if possible, to help him down the field. Those opponents who are omitted from the diagram would be the ones who might check his progress after he had pierced the line and started down the field.

The path of each player directly concerned in the interference is indicated by a dotted line. Where there is no dotted line the player blocks in his position in the line. The pass of the ball from the quarter-back to the runner is indicated by a feathered line. The dark, arrow-like strokes at the end of a dotted line indicate the direction in which the player applies his blocking.

Positions of the Players. The players in each case are lettered as follows : c., centre-rush; r. g., right guard; l. g., left guard; r. t., right tackle; l. t., left tackle; r. e., right end ; l. e., left end ; q., quarter-back; r. h. b., right halfback; l. h. b., left half-back ; f. b. full-back.
The positions in which they stand are indicated as clearly as possible upon the diagram, and it is intended that these
diagrams shall be relatively accurate. A single distance, therefore, on one of these diagrams, should furnish a sufficient key to the position of each player, since the diagrams are supposed to be projected on one general scale, the scale being a quarter of an inch to one foot.

In arranging the positions of the men acting upon the defensive, the attempt has been made to place them in as advantageous positions for checking the play as they would be likely to assume. If there arose any doubt or question, the side acting on the defensive has been given the benefit of the doubt, and have then always been placed in the better position of the two for checking the play. It is believed that in no case has any diagram been arranged with an unduly unfavorable situation of the players on the defense.

The two opponents usually omitted from the diagrams are the full-back and the rush-line half-back on the side farthest from the play.

Reversing the Movement. It will be noticed that in nearly every case the same play can be executed upon the other side of the centre. The choice of sides is purely arbitrary, and had better be decided according to the ability of the runner to execute the movement to best advantage. Some runners prefer to dodge upon the right foot, while others will prefer the left foot. The same element of choice or preference exists on many other points, and if it is desired to change the play from one side to the other, these minor points should be considered.

Each Play Practical. No one of the plays presented in this chapter is purely theoretical. Each has been thoroughly tested against an experienced eleven. There is not one of them which cannot be advantageously worked if properly directed. If the play is found to work bunglingly, or with poor success, the reason should be sought and the fault corrected. It may exist in the slowness of some member of the interference, the failure of some player to do his complete work, or more probably a slight deviation in the path of some one of the players, by which he interferes with, or slows down, the successful execution of the movement. No play can be successful unless all of these minor details have close attention.

The coach should never discard a play from his repertory until he is satisfied, not merely that it is not proving successful, but that it camnot be made to prove successful. In other words, he must know not merely that it is stopped, but the reason why it is stopped. It may often happen that that reason is a neglect of duty on the part of some one -player which may be easily corrected. Some man in the rush-line has not, perhaps, been taught the art of long blocking, and his failure to obstruct his opponent a sufficient interval of time may be the root of the whole difficulty, and be easily remediable. A very good method of judging a play is to make use of some of the tests enumerated in the chapter on "Accessories of Coaching."

Making the Dispositions. The assignments of the men to the work should be, in each case, the result of careful study, but changes may be tried if desired. No change, however, should be attempted which will interfere with the quick line-up. In some cases a change might be made where an interferer, instead of preceding the runner, is directed to follow him. These are really questions of personal preference, to be determined by the captain or coach, who knows the peculiar ability of his players, and will recognize where such a change as this would be wise.

In making the dispositions of players in different plays, it is always a mooted point whether an extra man can be of more service by going through the line ahead of the runner and "cleaning out the hole," as the expression is, or whether he is of more value as a pusher behind the runner, where the full force of his strength may be applied to force the runner past any point where he is temporarily obstructed. It is not possible to lay down any arbitrary rule on this matter, as it must depend, not alone upon the play, but upon the system of defense of the opponents, and often upon the peculiar ability of the runner or the assisting player. This is a point, however, which will constantly arise, and in each case it can, perhaps, best be settled by trying both methods in practice.

The Play on the Blackboard. In presenting one of these plays to a team, the best plan will be to assemble the players and have the movement carefully drawn out upon
the blackboard, making such slight changes in the dispositions or in the minor details as may be desired. The coach should then be prepared to answer any inquiries, and after every point has been cleared up, the players should go out upon the field, and taking their positions as provided in the diagram, walk through the play two or three times before attempting to execute it in the regular way. The players can thus familiarize themselves with the appearance of the movement, and get a better idea of the path over which each man travels. After walking through the play three or four times, let the pace be gradually quickened until the men execute the movement at a slow trot. From this the pace can be steadily quickened until the greatest possible speed is attained.

It may be questioned why a play requires to be interpreted upon the blackboard, when it is already in the hands of each one of the players. There is a reason, however, for this, and it is a valid one. Team play, as we have previously stated, is only possible in its highest efficiency when the players study the principles involved in every movement, so that they understand their own relative importance in each play, and realize wherein the success of the play may be obstructed through their negligence. A blackboard explanation, accompanied by questions and discussion, will give to many players a much clearer idea of the principle involved in the movement than they would have if this feature of the instruction was omitted.

Special Instructions to the Leading Players. After the first day of practice of the play, the coach or captain being then fairly familiar with the movements of each man, a sheet of special instructions should be prepared for the important players. These instructions should emphasize the points which must be borne in mind, thereby saving the coach much repetition, beside expediting the time when the play shall be smoothly executed.

In order to show more clearly the nature of these instructions to the players, we present the draft of possible instructions to the six players who take the most important parts in a single series of plays here offered. A similar set of
instructions may easily be prepared for any of the plays here shown, if the plays themselves are studied a little more closely by the captain or coach, and the various contingencies and critical points carefully noted. It is not necessary that such instructions should be prepared for each player, but only for the men who fill the most important positions in the movement.

## FORMATION OF SMALL WEDGES.

(See Diagrams)

## Instructions to Right End.

26. The rush-line half is the dangerous man. You should help the right tackle block his man, but one or the other of you (whichever is free first) should go to the rush-line half. This is imperative. Arrange it between you.
27. Your tackle goes through line instantly inside of his opponent; you remain and block his opponent or any one else who tries to come through on your side.
28. Push behind runner.
29. Look out for your opposing end; keep him out of the play if he gets into it. It is not probable that he will get into it for the first two or three times, and you can at first afford to let him go, and take the rush-line back, if you can get him. Otherwise the quarter-back, if you can get him.
30. Get into this play very cautiously, foxing your own end if you can, so as to get on the outside of him by some quick movement. Under no circumstances must you be drawn beyond him. Your work in the play is to block off the end, as the play is around this end.
31. This play is the reverse of No. 30. Follow instructions given to left end for No. 30.
32. Get down the field as quickly as possible under the kick.
33. You are the runner. Follow the exact path shown on the diagram, which must be parallel to the path of the first runner, and in an exactly opposite direction. Then make your dodge and find your hole just inside of the tackle-guard hole, close to guard. You should receive the ball by a hand pass, not by a toss. If the play does not work well, it is probably because you are not going far enough back before receiving the ball.

## Instructions to Right Tackle.

26. The rush-line half is the dangerous man. You and the right end block your man. Whichever one of you finds himself least effective should instantly go on to the rush-line half. This is imperative. Help runner all you can after he is through the line.
27. Go through instantly inside your man, and get across and help pull rumer through hole.
28. Do just the same as in 27 , but block an instant.
29. Block your man hard in the line. Your work in this play is more important than in any other. Quarter will help you with your man immediately after first pass; make your man go outside of you. Special Note. If any opponent blocks in the line between tackle and guard, leave your own man and take this inside opponent and throw him in. Notify your right end that he must take your man.
30. Block your man in the line, and throw him in (just the opposite of heretofore) ; a second later, if possible, block opposing rushline back, getting him on the outside. Special Note. If an opponent blocks in the line between tackle and guard, leave your own man and take the inside opponent. In this case notify right end that he must take your man and throw him in.
31. This play is the reverse of No. 30. Follow instructions given to left tackle in No. 30.
32. Get down the field quickly under the kick.
33. Block your man hard and long. Right half-back will block the hole on your left. Make your man go well outside of you.

## Instructions to Right Half-Back.

26. You are wholly responsible for the hole in this play. If any oppouent blocks in the line between tackle and guard, take him and throw him in. Otherwise quarter-back, if he is where you can get at him. Otherwise take guard, striking him hard and low, and keep on for quarter.
27. Go across inside of quarter and take tackle, not the end. If tackle is out of the play take either end or rush-line back, as seems best in practice.
28. You are the runner. The hole is farther out than you would naturally expect. Go through close to tackle.
29. You receive the ball as in 28 , but make the second pass and keep on exactly as in 28. Give the ball to runner in the pit of his stomach.
30. You receive the ball in this play exactly as in Nos. 28 and

29, but instead of passing it to the full-back as in No. 29, you pass it to the left half-back, who will cross from his position and receive the ball from you on your left side. Full-back "fakes" the play and does exactly the same as in 29 , but you do not pass to him.
31. This play is the reverse of No. 30. Read the instructions given in No. 30 to the left half-back.
32. Block hard in the line between tackle and guard. Special Note. In Nos. 26, 27, 32, and 33 you are solely responsible for any inside man between tackle and guard, and must keep him out of the play without regard to anything else.
33. You are responsible for the tackle-guard hole. Be sure that no one comes through that hole and obstructs the second pass in this play.

## Instructions to Left End.

26. Get over quickly and push behind runner. Once or twice try going straight through the line and go over to meet runner as he comes through hole and help pull him through. After careful practice of both methods, report to quarter-back which you think most effective, and do that one only.
27. Help the tackle with his man. You must make a good hole! The quarter and left half-back are both coming ahead of the runner to block off tackle and end. Therefore, after your first moment of blocking the tackle, you may find yourself. free to go on to rushline back or quarter-back.
28. Help your tackle block his man. If possible throw tackle back into the rush-line back. If this is not possible, throw the tackle outward ; make no mistake on this last point.
29. With the left half-back you cross inside of the quarter. Try and arrive just in time to push behind the second runner.
30. Go across as in No. 29 (inside quarter), and with the quarter and right end block off the opposing left end. The play is around that end.
31. This play is the reverse of No. 30. Follow instructions given to right end in No. 30.
32. Get down the field under the kick.
33. Do just the same as in 27.

## Instructions to Left Tackle.

26. Block your man in the line, and then go through and help the runner as he emerges.
27. Block your man and make him go outside of you. Left end helps you in this play.
28. Block your man. Left half-back helps you. If possible try
and throw him back on to the rush-line back. If this is not possible, throw him outward.
29. Block an instant, and then come quickly around behind to drop on ball in case of a fumble on the second pass. If rarely fumbled in practice, follow the path shown in diagram.
30. Block hard in the line, and with the left guard keep any one from coming through the tackle-guard hole on your side, while also attending to your own man. The latter is more important.
31. This play is the reverse of No. 30. Read the instructions given to right tackle for No. 30.
32. Get down the field quickly under the kick.
33. Do just the same as in 27 .

## Instructions to Left Half-Back.

26. Go across quickly and push behind runner. Be very careful, however, not to obstruct the pass. If opposing left end gets runner, arrange with quarter-back to start on signal for the snap and take the left end. It might be well to act similarly if the rush-line back stops the play, as he perhaps will. If the change does not work, however, go back to the first instructions to push behind runner. Notify the quarter of any change in your play.
27. You are solely responsible for the hole in this play. Take the inside man, if there is any, and throw him in. If there is no inside man, take the half-back as he starts toward the other side of the line. He is the dangerous man to the play. If there is an inside man, with half-back and quarter-back all in around the hole, call on left end to help you. Otherwise not.
28. Do just the same as in 27. You are responsible for the hole. Take the inside man (if there is one) above everything else. On every play at this hole, in this series, you are absolutely responsible for any opponent who blocks in the line between opposing tackle and guard.
29. Get off quickly and go across inside quarter. Take care, however, not to obstruct his work. If you reach hole ahead of runner, go through ahead of him. Otherwise help him through. If you have a chance to go through ahead of runner, take tackle, end, or rush-line back.
30. You are the runner. Get away very quickly and receive ball on a criss-cross from right half-back. The play is around the opposite end, and your blockers are the left end, quarter-back, and right end. You will probably find it easier to circle the end than go inside of $i$ t.
31. This play is the reverse of No. 30. Read the special instructions to right half-back in that play.
32. Get down the field under the kick.
33. The danger in this play is that opposing right guard will not be put out of the play. Get into him hard and low, and shove him back as much as possible and over on to centre. Stay with him.

## Instructions to Full-Back.

26. You are the runner. The hole is just inside your right tackle. You have a strong pushing force behind you, so keep your feet as long as possible.
27. The success of this movement depends on your ability to make the dodge. Practise it continually. Let your dodging step be made with the right foot and spring backward sharply from it. The first path (before the dodge) must be maintained long enough to draw over the opposing backs. Get the ball always before you dodge. For the line-up stand a trifle farther to the left than usual. There is a good wide hole in this play. Keep your feet, and play it as if for a long run. Run low after you dodge.
28. Go on left side of runner, and push him hard and low. You can meet and steady him on his turn into the line. Try in practice going through once or twice ahead of runner, and taking the opposing rush-line back. Change if it proves better.
29. You advance slowly so as to be in the correct position for right half-back to simply transfer the ball from the quarter to you. He should not himself carry it forward a foot; after receiving it, he passes it to you on a level with the pit of your stomach, so that there can be little danger of your fumbling. This play should be executed at lightning speed, and is entirely safe on a wet day. You pass behind right half-back, not in front of him.
30. Do just as you do in No. 29, but pass behind the right halfback, and go into the same hole in the line. Try and execute the play so that opponents shall think the second pass is to you. Keep out of rumner's way. When through line, go straight for opposing rush-line half or quarter.
31. This play is the reverse of No. 30. Do the same thing on the other side of line.
32. A quick side kick. It ought to be placed out of reach of opposing full-back. It should be a long, low punt that will roll. Or it may be a short punt of twenty yards with good height.
33. You cannot make this play quite as rapidly as No. 29. Your pass to the right end must be a short hand pass, not a toss. Start from a little to the left of your usual place. The play will need practice more than any other of this series.

With these few words of general explanation we will proceed immediately to the presentation of the diagrams, accompanying each diagram with a brief description of so much of the movement as is not clearly interpreted by the engraving, giving the precedence of different players traversing the same track, stating our own preference in certain cases for an interference ahead or behind the runner, and giving one or two hints as to the times and occasions when the play may be most successfully employed.


Play I

## Ordinary Formation: Outlet No. 1

[Plays I. to IX. inclusive are offered as suggestions for indirect attacks to supplement the usual direct attacks from this primary formation.]

A dodge by the right half-back after receiving the ball. He should keep on his original path for an appreciable moment of time after the pass. The left half-back steadies him on his reverse, and then pushes from behind. The nearer the dodge is made to the line, without danger of contact with the centre, the more effective it will be. Full-back crosses in front of left half-back.

The ability of different players to execute a sharp dodge varies greatly, but in the hands of a light, quick-moving back this play should be very effective.

In an important match on a rainy day this play should not be attempted.


Play II
Ordinary Formation: Outlet No. 2
This is a good play for a team having an extra strong quarterback, but in no other case should it be attempted. Few plays are more completely dependent upon the effort of a single individual, and the quarter alone can make this movement successful.
The play is a fake at the tackle-guard hole. The ball is passed to the right half-back, who turns half round after receiving it, and blocking himself backward against his own line and interferers, passes the ball to the quarter-back, who circles the left end. If the play is successfully executed, the opposing right end will be drawn in and should miss the runner by about three feet.

Right end interferes for the quarter-back down the field.


Play III

## Ordinary Formation: Outlet No. 3

Ball to the left half-back, who dodges behind his interferers. The play starts as if the interference was to go around the end.

In an important match on a rainy day this play should not be attempted.


Play IV
Ordinary Formation: Outlet No. 4
This play is based on a double pass, and is a fairly strong attack. With practice, it is entirely safe for a wet day.

The first pass is to the left half-back, who passes again to the right half-back for a run through the tackle-guard hole. The pass should be a hand-pass, - not a throw, - and the ball should be delivered to the second runner directly in the pit of the stomach. The right half-back does not more until he gets the ball, unless to take one step backward. The play is ostensibly a round-the-end attack. The left tackle blocks an instant, and then comes around in a position to drop on the ball if it should be fumbled in the second pass. Full-back goes ahead of the left half-back.


## Play V

## Ordinary Formation: Outlet No. 5

This play is a little dangerous, but can be successfully worked with a clever end.
The ball goes to the left half-back, and the entire interference starts as if to circle the end. The left end gets away instantly on the snap, and circles quickly to a position one and a half yards outside of runner, and one yard behind him.
The second pass must be made when the left half-back is opposite the opposing left tackle, and not a moment later. It should be a slightly backward toss of the ball, and the left end should be held responsible for being in the position where he can receive this toss at the moment it is made, which must be just before the opposing left end hits the interference. Practically the left halfback passes as soon as he can transfer the ball from one side to the other. The left tackle must block an instant, and come around quickly to fall on the ball in case the second pass is fumbled.

This play need not be discarded on a rainy day.


Play VI
Ordinary Formation: Outlet No. 6
Ball to left end.
The full-back steadies the left end, and helps to turn him into the line. Left half-back goes ahead of full-back.


Play VII

## Ordinary Formation : Outlet No. 7

Ball to the right half-back.
This must be played as a dive play, and not as a regular run with interference. The full-back should push immediately behind the runner, with the quarter-back pushing behind the full-back.

The same play can be operated on the other side of the line.


## Play VIII

Ordinary Formation: Outlet No. 8
Ball to the full-back, with the right half-back as the principal pusher. Left half-back and quarter-back should get immediately into the push, reënforced by the two ends. The play can also be made on the other side of the centre.


Play IX
Ordinary Formation: Outlet No. 9
Ball to left half-back, who goes outside end.
Form the interference carefully, and do not attempt speed at the beginning of the practice. The same play can be directed around the other end if desired.

Right half-back and full-back must get off instantly, and put the opposing end out of the play, or it will inevitably fail. Strike him low and hard.


Close Formation: Outlet No. 1
Ball to left half-back. Right tackle and right end engage opposing tackle, and throw him outward. Right half-back and full-back go straight through the hole ahead of the runner, and engage opposing rush-line back. Left end and tackle, with quarter-back, push the runner.

Try also letting right half-back help right guard with his man instead of going straight through.


Close Formation : Outlet No. 2
Ball to right tackle.
This is a difficult manœuvre, and will require very careful rehearsing. The paths of several players cross each other at a point just outside the position of left end. The order of precedence of these players should be as follows: left half-back (who, with left end, engages opposing tackle and throws him in) ; left guard (who engages opposing end, blocking him out); right half-back (who engages opposing rush-line back, blocking him in); right end (who, circling outside rumner, engages opposing end, blocking him outward); the runner (who goes between end and tackle).

Quarter-back blocks off opposing left tackle, or any opponent following behind runner. Left tackle and full-back instantly engage opposing right guard, the full-back crossing ahead of runner, right end, and right half-back.


Play XII

## Close Formation : Outlet No. 3

A centre dive by the full-back. Right guard and right tackle engage opposing left guard and throw him out. Left half-back and right half-back make a feint attack against opposing left tackle; left end, with quarter-back, pushes behind runner.

When properly worked, this is one of the most effective of plays at the centre of the line. Another disposition of the labor is to let centre and right guard throw opposing left guard outwards, while right half-back, from a position a little to the right of his ordinary place, strikes the opposing centre without an instant's delay, and throws him to the left. The attack must be quick, and the more he can strike from the side the better. Left half pushes behind.


Play XIII
Close Formation : Outlet No. 4
Ball to right half-back.
With a good dodging half-back this is, perhaps, the most effective play in this volume. The dodge must be sharp and quick, but it must not be executed so soon as to fail to draw off the opposing backs toward the left side of line. The left half-back steps backward a trifle, timing his movement so as to grasp the runner strongly around the waist, and help him forward after his dodge. Left tackle and left end cross inside the quarter, and with the quarter and right end all engage the opposing left tackle and throw him outward. Right tackle, with right guard, blocks opposing left guard inwards. Full-back aids in the feint first attack toward the left side of line.


## Play XIV

## Guard Back: Outlet No. 1

The guard should line up half a yard in advance of the line of the backs, who should be five yards back; any nearer distance will seriously hinder the effectiveness of the play. Ball to left half-back. The play is a simple round-the-end attack, but cannot possibly succeed unless the interference is directed straight out across the field for some little distance after it starts. If allowed to work up toward the line of scrimmage in order to meet the opposing end, it will undoubtedly fail as often as it succeeds.

Full-back and right half-back are the only players to go straight for the end.


The pass is to the guard. Right tackle helps block opposing left guard. Right end engages rush-line back; right half-back and fullback take the tackle; left half-back, left end, and quarter push behind runner.

This same movement should also be tried with the ball passed to the left half-back, who in this case is preceded by the guard.


Play XVI
Guard Back: Outlet No. 3
A short backward pass to the right half-back. Left end helps left tackle against opposing guard. Left half-back and left guard engage opposing right tackle. Full-back precedes the runner through the hole ; right end crosses sharply behind the interference, and prevents opposing right end from following runner and overtaking him from behind.

Guard against a forward pass in this play.


Play XVII
Guard Back: Outlet No. 4
Ball to left half-back for a side kick. Right tackle goes down field; also left end, after a moment's blocking. The kick should be a high one, and not too long to prerent the assembling of two men around the opposing full-back when he receives the ball.


Play XVIII
Ends In: Outlet No. 1
Left end receives the ball from quarter, leaving his position in the line and coming close behind the quarter. In doing this he should get off as quickly as does the tackle when he runs from his position in the line. The pass from the quarter should be very short, and the quarter should go on with the runner. In the diagram, the right end and right tackle box the opposing tackle, and the quarter, as he comes with the runner, disposes of the rush-line back. Should the quarter, either from being too slow, or from the fact of the runner being an especially fast man, find that he cannot take this rush-line back, then the half-back may be sent against him instead of in the mass of interference at the end. The left tackle follows left end and makes the play safe from behind.


Play XIX
Ends In: Outlet No. 2
Left half-back under full headway gets the ball on a short pass from the quarter. Right end helps right guard to crowd his man in. Right half-back aids right tackle in forcing his man out, while full-back precedes left half through the opening. Left end and left tackle follow behind and push while quarter goes in directly behind left half and practically attached to him.


## Play XX

Ends In: Outlet No. 3
Full-back receives the ball on a hand pass from quarter, and plunges directly through between centre and right guard, who open a hole for him. Both halves go in from behind and push while both ends follow the halves and add their weight and strength to the mass. Both tackles crowd their men out in order that they may be unable to help stop the push.


Play XXI
Ends In: Outlook No. 4
As this play is intended to appear to the opponents similar in its formation to XVIII., XIX., and XX., the ends should, upon the lineup, take their positions close to the tackles, but may, and should, as soon as the play is started, slightly body-check the man most likely to interfere with the kick, and then make all haste down the field. Full-back and the two halves take the same positions as in the former plays, but full-back starts upon a backward run just before the snap, which should be properly timed, so that the ball is put in play and passed by the quarter to reach the full-back just as he has come to a standstill at the proper distance for a kick. After the ball is snapped, and not till then, the two halves take a step or two backward and out, and then protect the kicker in the usual way.


Play XXII
Tandem on Tackle: Outlet No. 1
The four plays from this line-up (Nos. XXII., XXIII., XXIV., and XXV.) will be found to be good ground gainers, and well adapted for use inside the opponents' twenty-five-yard line. They will be much more effective if the left end is a strong player. He takes his position at each line-up with his arms extended, and resting his hands upon the hips of the right half-back. In all the attacks at the right tackle-guard hole, the right half-back is the apex of the movement. The formation should be very close to the line, and the manœurres should be executed as straight dive plays, without an instant's delay for the formation of interference.
In the above play the attack at the right side of the line is a fake, but should be strongly made. Ball to left half-back; full-back pushes.


Play XXIII
Tandem on Tackle: Outlet No. 2
Ball to left end. This play will be found to be the strongest play in the series, if left end is a strong player. The right halfback pushes on the left side of the runner, and the quarter-back on the right side.


## Play XXIV

Tandem on Tackle: Outlet No. 3
If this is executed strictly as a dive play, it will be found to be a very strong attack. The pass is to the right half-back. Left end is the principal pusher, reënforced by the quarter-back and full-back. The left half-back executes a fake attack on the other side of the centre. Right end goes in ahead of the tandem, and must keep out of its way.


Play XXV
Tandem on Tackle: Outlet No. 4
The pass is to the full-back. Right half-back and left end go through the line ahead of the full-back, and clear the opponents out of the path. Left half-back is the principal pusher, reënforced by quarter-back and left tackle. Right end goes in ahead of the tandem.


## Play XXVI

## Small Wedges: Outlet No. 1

(See fuller instructions upon this series in an earlier part of this chapter.)
Ball to full-back.
Opposing rush-line half is the dangerous man to this play. Right end or right tackle should take him instantly, whichever one is free first. This is imperative. As rush-line back can only meet runner, however, at or behind the line, the pushers behind runner are valuable. Left half-back must be careful not to obstruct the pass. If opposing left end interferes with runner, let the left half-back cross ahead of the pass and take this end.


Play XXVII

## Small Wedges: Outlet No. 2

(See fuller instructions upon this series in an earlier part of this chapter.)

Ball to full-back.
The left-hand wedge must make the hole, and left half-back is responsible for this. Let him call on the left end if needed. Right half-back should go inside the quarter and push opposing tackle outwards.

If the dodge is well executed and sufficiently pronounced, the runner will find a large hole awaiting him. Let him bear this in mind and keep his feet at all hazards, executing the movement as if it was to be a long run and not a mere dive attack. This play need not be abandoned on a wet day.


## Play XXVIII

## Small Wedges: Outlet No. 3

(See fuller instructions upon this series in an earlier part of this chapter.)
Ball to right half-back.
The full-back goes on the left side of runner, and engages opposing right half-back. The tackle should be thrown back on to the opposing rush-line back, if possible; otherwise throw him outward. Opposing right guard must be blocked hard and long; left guard must not be thrown back so as to block the runner's path.

The runner should remember that the hole is farther out than he would naturally expect.


Play XXIX
Small Wedges: Outlet No. 4
(See fuller instructions upon this series in an earlier part of this chapter.)
Criss-cross from right half-back to full-back.
This play should be executed at full speed. Left end and left half-back cross inside of quarter. Quarter helps right tackle on his man. The runner follows after quarter ; left end and left half-back follow behind rumner and push him. This play need not be abandoned on a wet day.


Play XXX
Small Wedges: Outlet No. 5
(See fuller instructions upon this series in an earlier part of this chapter.)

Criss-cross from right half-back to left half-back.
The runner goes inside the end, but otherwise as far out from the centre as possible. The three centre men must block hard and long, and not yield an inch, thus enabling the criss-cross to be executed as close to the line as possible. This play need not be abandoned on a wet day.


Play XXXI
Small Wedges: Outlet No. 6
(See fuller instructions upon this series in an earlier part of this chapter.)

Criss-cross from left half-back to right half-back.
This play is a reversing of the previous movement, and should be brought off in the same manner, the attack being directed at the other side of the line. This play need not be abandoned on a wet day.


## Play XXXII

## Small Tedges: Oftiet No. 7

(See fuller instructions upon this series in an earlier part of this chapter.)

Quick punt by full-back.
The kick should be toward the left side of field, and a low, longrolling punt. Being unexpected, it should prore effective. Every man down the field on this kick! Left half-back and left end go down field immediately, without blocking opponents in the passage through the line. Not less than four men should be gathered about the opposing full-back when he reaches the ball.


## Play XXXIII

## Small Wedges: Outlet No. 8

(See fuller instructions upon this series in an earlier part of this chapter.)
Criss-cross from full-back to right end.
Follow paths exactly as drawn on diagram for second pass. The danger in this play is of having the centre thrown back. Left halfback must be sure that his side of the line is firmly blocked, to prevent a fumbled second pass. This movement should not be attempted on a wet day.


Five-Square Formation: Outlet No. 1
Ball to left half-back, who falls in behind the full-back, and in advance of left end and tackle. Right half-back blocks opposing guard. Right end assists right tackle against tackle. Full-back goes ahead of runner to clear the path of opponents.


Play XXXV
Five-Square Formatron: Outlet No. 2
Ball to left half-back, who receives it on his left side, and transfers it to his right side, half turning, and passing the ball (by a hand or "short" pass) to the left tackle, who circles the end. Fullback and right end should engage the opposing left end, getting outside of him if possible, and pocketing him. Right tackle blocks the guard. Right half-back instantly engages tackle.

It will be better for the left tackle to keep close in to the mass and break away just before reaching the passing of the end.


Five-Square Formation: Outlet No. 3
This is the strongest play of this series, and should be repeatedly successful for average gains of two or three yards. The ball is passed to the left end while he is going forward with the interference toward the right of line. He dodges at the point shown on diagram, and, assisted by right end (who has held his place), goes through between left tackle and left guard. Quarter-back, after the pass, helps left tackle block his opponent outward. Left half-back, right half-back, and full-back feint an attack on the right side of line, getting away instantly.

The pass is made behind the full-back and left half-back, and not in front of them.


Five-Square Formation: Outlet No. 4
This is an attempt to introduce an unexpected kick by the fullback. Right end should instantly adrance, keeping out of the way of the full-back as the latter drops back and to the right for a kick. Left and right tackle go down the field after a moment's blocking.


## Play XXXVIII

Tackle Force: Outlet No. 1.
This is an effective series, both outlets being unusually strong. Right tackle blocks his opponent on the inside. Left tackle plunges into opposing left guard, opening a wide hole. Left end engages quarter-back; full-back, right half-back, and right end make a dash toward the end to draw out opposing rush-line back. The left half-back receires the ball on his left side, and until he has it he keeps on (for a step or two) with the full-back as if to circle the end; then makes a straight rush toward the line. going through close to the guard's position. The hole is midway between tackle and guard. The relatire paths of runner and fullback are as drawn in diagram.
The play will be more effective if the runner is a small man, who will keep on until he cannot gain another inch.


Play XXXIX
Tackle Force: Outlet No. 2
An unusually strong play around the end of the line. Ball to left half-back. The play should be started as quick as a flash. Its especial effectiveness lies in the fact that the runner is wholly protected except at the passage of the end. The space between tackle and end is amply covered; a body of four interferers should accompany rumer as he circles the end.

Right-end must get off on the instant of the snap and engage opposing half-back. If the play is started with snap and dash, opposing right tackle cannot reach runner from behind.


## Play XL

## Two-Play Formation: Outlet No. 1

This is not in itself a movement of special value, but will serve to introduce the following play, which, in a critical situation, may be used with really surprising results.

In the attack here shown the full-back helps the right end with his opponent; left guard and left end, with the quarter-back, form the interference for the runner. Right half-back engages opposing left half-back; right tackle engages opposing tackle ; left tackle engages quarter. Ball to left half-back.


## Play XLI

## Two-Play Formation: Outlet No. 2

Ball to full-back, who starts as if to circle right end, but, on a sharp quarter-turn dodge, goes through line at the tackle's position.

This will be found an unusually strong play. Right end blocks his opponent a moment, and then helps right tackle with his man. He must be careful not to detain opposing rush-line back, but let him through outside the interference. This player is really the dangerous opponent. The hole may be a little farther out than is expected. Runner can place his hand on left half-back to aid him in the dodge.

Block the tackle in; let the end and rush-line back through on the outside of the play. If the runner is caught from behind, it will be the fault of the left end, and he must stay longer with his man. Right half-back and right end must keep clear of right guard. If they collide with him they must change their path, giving him the shortest route. Left tackle must get off very quickly, striking the opposing guard hard and low, and blocking him long.

If opposing left guard catches runner on his dodge, let right guard stay with him and keep out of the interference.

In the interference as here formed the work of the right guard and quarter is to engage opposing left half-back and prevent him from reaching the runner.

Do not be discouraged if, in a first attempt, this movement seems of little value. It is a play which will improve every time it is played, and should be good for a gain of three to five yards on repeated occasions.


## Play XLII

## Trick Series: Outlet No. 1 -Double Pass

This play is effective and not dangerous, but will need much practice. It may be played in either one of two ways. The pass may be to the left guard, who repasses it to the full-back. Or the pass may be made directly to the full-back, between the left halfback and the left guard. In the latter case the left guard must slow up slightly, and the left half-back get away instantly. This latter pass makes the play a trifle quicker.

Let opposing left end, tackle, and rush-line back straight through the line. Block all other opponents strongly on a line with the position of the guard. The runner can then go straight to the line, piercing it at about the position of tackle. Left end should come around in time to fall on the ball if fumbled in the second pass. Right end is principal interferer for the rumner after the passage of the line. This attack is very deceptive when well executed.

The runner's path is protected by left guard, left half-back, and quarter on the right; by right guard, right half-back, and right tackle on the left.


Play XLIII
Trick Series: Outlet No. 2 -Right-Angling the End
Ball to left guard.
An attempt to circle the end, with interference against the opposing end from diametrically opposite directions. Right end should endeavor to reach his opponent an appreciable instant before the main interference reaches him, striking him hard enough to unsettle him and prevent his breaking the interference. Full-back blocks the end for an instant, but keeps on immediately against rush-line back. Left end must get into the interference.

The position of the right end should be never less than five yards outside his opponent.


Trick Series: Outlet No. 3-Long Pass
A long second pass from left half-back to right end, who stays out as far as possible. Right half-back and right tackle block close and hard. Left half-back delays his pass as long as possible to draw opposing left end well in. Left end circles wide out as main interferer for the runner. He must be careful not to obstruct the pass.
It may be necessary in this play for the left end to slightly change his position in order to reach the runner in time to be of any service. He must arrive in time to engage the opposing end. and prevent him, if possible, from reaching the rumer. It may be well for him to slightly shift his position toward the centre, if necessary, to enable him to do this.


Trick Series: Outlet No. 4 -Quarter-Back Kick
A quick kick by the quarter. The ball is to be recovered by the right end, who must keep on-side until the kick is delivered. Left half-back and left guard follow the paths indicated in the diagram, keeping well on-side until they know that the kick has been made. Full-back goes straight to the opposing end.

This play can only be executed from the left side of the field, and the kick should be high enongh to enable the right end to get under it and capture it if possible before it reaches the ground. Failing to do this, if close pressed by the opposing end, he should leave the ball to be secured by his own left guard or half-back, and himself vigorously engage the end.


䜤ев
Play XLVI

## Fake Kick

This is the simplest form of a fake kick, in which the ball may be passed to either the right or left half-back for a sharp dash through the tackle-guard hole. The tackle should find it easy to get his opponent in such a position that it will be impossible for him to go through inside of his position. As he starts to go through on the outside, the tackle can effectively block him off from the rumner.

The guard will have the more difficult task of blocking his opponent and keeping him away from the runner. He should have the immediate assistance of the centre as soon as the latter can safely render that assistance. The guard should block his opponent on the outside, and be prepared to render the centre sufficient assistance to enable them mutually to block the man on the inside.

The half-back should stand very close to the line for this play, and right end and left tackle should go sharply through to render him assistance as he emerges from the line.

Be careful not to have a forward pass.


## Play XLVII

Fake Kick Criss-Cross: Outlet No. 1
This is the first of a series of two plays in each of which the line-up is for a kick, while the play terminates in a run.

In the first movement, as shown above, the full-back has dropped back for a kick, but the ball is passed to the left half-back, and, aided by strong interference, he carries it through the hole between right tackle and end. The dispositions are as follows : Right halfback and full-back take opposing end. Right tackle blocks his own man inwards. Right end goes through immediately and engages opposing half-back. Left guard, left tackle, and quarter-back form an interference for the runner as he circles into the line. Left end goes sharply through to assist runner as he emerges.

This movement should be tried once or twice before disclosing the nature of the second attack, contained in diagram XLVIII., which is the criss-cross.


Play XLVIII
Fake Kick Criss-Cross: Outlet No. 2
As soon as the opponents have become a little familiar with the movement in the preceding diagram, this criss-cross form of attack should be tried. The line-up is the same, and the ball, as before, is passed to the left half-back, who, as he rushes forward into the line, repasses it to the right end. Left end and left tackle box the opposing tackle. Quarter-back and right half-back engage the opposing right end. Right guard and full-back act as immediate interferers for the second runner.
The full-back should notice that his first movement is the same as in the preceding play. His dodge should take place immediately after the first pass to the left half-back, and not before this pass. This will be in ample time for him to precede the rumner in the interference. Right guard should not leave his opponent until he has successfully blocked him for a short interval, to prevent his interfering with the second pass.

Right tackle blocks hard and long.


Play XITX
Mass at Tackle
This is a single play, but if successfully mastered it will be found very easy to develop a round-the-end attack from the same line-up. The pass is to the left half-back. The path of the runner is just over the spot where opposing left tackle stands, or slightly inside of that place. Left tackle is forced in by the combined attacks of the four players directed against him. Full-back engages opposing end; left end pushes behind runner; quarterback (after the pass) keeps opposing right tackle out of the play. Opposing left half-back will undoubtedly misjudge the nature of the attack on the first trial, and be found outside the path of the runner.

Right end and right half-back cross ahead of the full-back.


## Play L

## Emergency Play (Risky)

Special play for the last five minutes of a match, with a slightly adverse score.

The pass is to the left half-back. Right end and full-back block the opponent who is next inside of the end. Left half-back, on nearing the line, repasses the ball over the head of opposing left end, to right half-back, who has gone as far as possible toward the side of the field. The play will require careful rehearsing in the matter of this double pass.

Right half-back should not undertake to pass the full-back, but just before meeting him should make a running kick to the farther side of the field, where left tackle and left end must be already located. Right half-back should then dodge the full-back and go straight down the field to put his team on-side. The ball can then be secured by either left end or left tackle, with a good possibility of a touch-down, if the movement has been successful up to this point.


Play LI
Side Line Play
Special play when the ball is down close to the side line. The position of the ball should be close enough to the line to prevent the right end taking his customary place beside the tackle, and he takes position as shown on diagram. The play begins with a false start by the left half-back. He goes straight to the line, stopping there abruptly, as if discovering his error. Immediately upon his stopping in this position, the ball is snapped. The attack is apparently directed toward the long side of field, but under cover of this diversion a "short," or hand, pass is made to the left half-back, who starts from his attained position in the line and circles close behind the quarter and around the right end. Opposing left tackle (who is the outside man of opponents) is blocked inward by right tackle and right end.

The runner must be careful, in the excitement of the play, not to swerve over the side line.

## CHAPTER XIV

## RULES OF THE SEASON OF 1896

Rule 1. (a) The game shall be played upon a rectangular field 330 feetin length and 160 feet in width, inclosed by heavy white lines marked in lime upon the ground. The two end lines shall be termed goal lines. The goal lines and the side lines shall extend beyond their points of intersection, and the spaces lying behind the goal lines and outside of the side lines shall be termed touch-in-goal. The goal shall be placed in the middle of each goal line, and shall consist of two upright posts exceeding 20 feet in height and placed 18 feet 6 inches apart, with a cross-bar 10 feet from the ground.
(b) The game shall be played by two teams of eleven men each.
(c) The football used shall be of heavy leather inclosing an inflated rubber bladder. The ball shall have the shape of a prolate spheroid.

Compare corresponding rules in old code, namely, 12 and 13, as follows : -
Rule 12. The grounds must be 330 feet in length and 160 feet in width, with a goal placed in the middle of each goal line, composed of two upright posts, exceeding 20 feet in height, and placed 18 feet 6 inches apart, with a cross-bar 10 feet from the ground.
Rule 13. The game shall be played by teams of eleven men each, and in case of a disqualified or injured player, a substitute shall take his place. Nor shall the disqualified or injured player return to further participation in the game.

Rule 2. (a) A drop-kick is made by letting the ball fall from the hands and kicking it the very instant it rises from the ground.
(b) A place-kick is made by kicking the ball after it has been placed upon the ground.
(c) A punt is made by letting the ball fall from the hands and kicking it before it touches the ground.
(d) Kick-off is a place-kick from the centre of the field of play, and cannot score a goal.
(e) A kick-out is a drop-kick, place-kick, or punt made by a player of the side which has touched the ball down in its own goal, or into whose touch-in-goal the ball has gone.
(f) A free kick is a term used to designate any kick where the opponents are restrained by rule from advancing beyond a certain point. If a side obtain a free kick they may put the ball in play by a punt, drop-kick, or place-kick, and their opponents cannot come within ten yards of the line on which the free catch was made. The kicker may kick the ball from any point directly behind the spot where the catch was made, on a line parallel to the side line.

Compare Rules 1 and 22 of old code, which read as follows: -

Rule 1. (a) A drop-kick is made by letting the ball fall from the hands and kicking it at the very instant it rises from the ground.
(b) A place-kick is made by kicking the ball after it has been placed on the ground.
(c) A punt is made by letting the ball fall from the hands and kicking it before it touches the ground.
(d) Kick-off is a place-kick from the centre of the field of play, and cannot score a goal.
(e) Kick-out is a drop-kick, place-kick, or punt made by a player of the side which has touched the ball down in its own goal, or into whose touch-ingoal the ball has gone.

As amended by Yale and Princeton:-
Rule 1. (e) Leave out "or into whose touch-in-goal the ball has gone." Otherwise unchanged.
(f) A free kick is a term used to designate any kick where the opponents are restrained by rule from advancing leyond a certain point.

As amended by Harvard, Pennsylvania, and Cornell:-
Rule 1. (f) "A free kick is a term used to designate any kick where the opponents are restrained by rule from advancing beyond a certain point. If a side obtain a free kick they may put the ball in play by a punt, drop or place kick, and their opponents cannot come within ten yards of the line on which the free kick was made."

Rule 22. A player who has made and claimed a fair catch shall take a dropkick, or a punt, or place the ball for a place-kick. The opponents may come up to the catcher's mark, and the ball must be kicked from some spot behind that mark on a parallel to touch line.

As amended by Yale and Princeton:-
Rule 22. Substitute the following: "After a fair catch, the ball may be put in play by any player of the side having made the catch. It may be put in play either by a free kick or by a scrimmage, the point of scrimmage being at the catcher's mark. If by a free kick, the opponents must not advance beyond the catcher's mark, and the ball must be kicked from some point belind that mark on a parallel with the touch line."

As amended by Harvard, Pennsylvania, and Cornell:-
Rule 22. This rule is stricken out by Harvard, Pennsylvania, and Cornell, and is supplied by Rule 1, section f, and Rule 8, supra.

As will be noted, the principal alteration lies in the free kick clause. A player may - see later rules - heel the ball or run with it. If he heel it, the opponents retire ten yards.

Rule 3. The ball goes out of bounds when it crosses the side line, or when the holder puts part of either foot across or on that line. The side line is out of bounds, and the goal line is in goal.

Compare Rule 2 of the old code.

[^3]The term "out of bounds" is used throughout the new code in place of "in touch."

Rule 4. A foul is any violation of a rule.
This is identical with Rule 3 of the old code.
Rule 3. A foul is any violation of a rule.
Rule 5. (a) A touch-down is made when the ball is carried, kicked, or passed across the goal line and there held either in goal or touch-in-goal. The point where the touch-down is marked, however, is not where the ball is carried across the line, but where the ball is fairly held or called "down."
(b) A safety is made when a player guarding his goal receives the ball from a player of his own side, either by a pass, a kick, or a snap-back, and then touches it down behind his goal line; or when he himself carries the ball across his own goal line and touches it down; or when he puts the ball into his own touch-in-goal; or when the ball, being kicked by one of his own side, bounds back from an opponent across the goal line, and he then touches it down.
(c) A touch-back is made when a player touches the ball to the ground behind his own goal, the impetus which sent the ball across the line having been received from an opponent.

The old code Rule 4 is the same.
Rule 4. (a) A touch-down is made when the ball is carried, kicked, or passed across the goal line and there held either in goal or touch-in-goal. The point where the touch-down is marked, however, is not necessarily where the ball is carried across the line, but where the hall is fairly held or called " down."
(b) A safety is made when a player, guarding his goal, receives the ball from
a player of his own side, either by a pass, a kick, or a shap-back, and then touches it down behind his goal line, or when he himself carries the ball across his own goal line and touches it down, or when he puts the ball into his own touch-in-goal, or when the ball, being kicked by one of his own side, bounds back from an opponent aeross the goal line, and he then tonches it down.
(c) A touch-back is made when a player touches the ball to the ground hehind his own goal, the impetus which sent the ball across the line having been received from an opponent.

Rule 6. A punt-ont is a punt made by a player of the side which has made a touch-down to one of his own side for a fair catch.

## Identical with old Rule 5.

Rule 5. A punt-out is a punt made by a player of the side which has made a touch-down in its opponents' goal, to another of his own side for a fair catch.

Rule 7. A scrimmage takes place when the holder of the ball places it upon the ground and puts it in play by kicking it forward or snapping it back.

## Identical with old Rule 7.

Rule 7. A scrimmage takes place when the holder of the ball puts it down on the ground, and puts it in play by kicking it forward or snapping it back.

Rule 8. A fair catch is a catch made direct from a kick by one of the opponents, or from a punt-out by one of the same side, provided the man while making the catch makes a mark with his heel, and no other of his side has touched the ball. If he be interfered with by an opponent who is offside, or if he be thrown after catching the ball, unless he has advanced beyond his mark, he shall be given, fifteen yards.

See Rule 8 (also Rule 29) of the old code, which reads as follows:-

Rule 8. A fair catch is a catch made direct from a kick by one of the opponents (or a punt-out by one of the same side), provided the man intending to make the catch indicates that intention by holding up his hand when running for the ball, and also makes a mark with his heel upon catching it, and no other of his side touches the ball. If he be interfered with by an opponent who is offside, or if he be thrown after catching the ball, he shall be given fifteen yards, unless this carry the ball across the goal line. In that case he shall be given but half the intervening distance. After having raised his hand he cannot run with the ball, but must take his fair catch if he succeed in making one.
As amended by Yale and Princeton:-
Rule 8. Substitute the following: "A fair catch is a catch made direct from a kick by one of the opponents, or from a punt-out by one of the same side, provided the man making the catch makes a mark with his heel and does not advance beyond that mark, and no other of his side has touched the ball. If he be interfered with by an opponent who is off-side, or if he be thrown after catching the ball, he shall be given fifteen yards, unless this carry the ball across the goal line; in that case he shall be given but half the intervening distance." As amended by Harvard, Pennsylvania, and Cornell:-
Rule 8. "A fair catch is a catch made direct from a kick by one of the oppo-
nents (or a punt-out by one of the same side), provided no other of the catcher's side touches the ball. If the player be interfered with while attempting to catch the ball by an opponent who is off-side, or if he be thrown after catching the ball, he shall be given fifteen yards. After laving canght the ball, he cannot run with it, but may pass it to one of his own side who can run with it or kick it, otherwise it must be put in play at the spot where the fair catch is made, either from a scrimmage, as provided in Rules 7 and 30 , or by a free kick, as provided in Rule 1 (f). In case the ball is muffed, the opponents shall have an equal chance at the ball."
Rule 29. If a player when off-side interferes with an opponent trying for a fair catch by touching him or the ball, or waving his hat or hands, or deliberately getting in his way, the opponent may have an advance of fifteen yards and a free kick, or down, from where the interference occurred.

As noted earlier, a player may exercise his judgment as to heeling the ball, but if he does heel it, the opponents are subject to a penalty of fifteen yards if they throw him. They are also subject to the same penalty if they interfere with him when trying to make his catch.

Rule 9. A goal consists in kicking the ball in any way except by a punt from the field of play over the cross-bar of the opponents' goal. If the ball pass directly over one of the uprights it shall count a goal.

See Rule 6 of the old code.
Rute 6. A goal is obtained by kicking the ball, in any way except a punt, from the field of play, over the cross-bar or post of the opponents' goal.

The change is merely in the wording.
Rule 10. Charging is rushing forward to seize the ball or tackle a player.

The same as Rule 9 of the old.
Rule 9. Charging is rushing forward to seize the ball or tackle a player.
Rule 11. Off-side.
(a) If a player be in the opponents' territory when the ball is put in play he is off-side.
(b) A player is put off-side if the ball in play has last been touched by one of his own side behind him. No player when off-side shall touch the ball except on a fumble in a scrimmage, nor with his hands or arms interrupt or obstruct an opponent until again on-side. No player can, however, be called off-side in his own goal.
(c) A player being put off-side is put on-side when the ball has touched an opponent, or when one of his own side has run in front of him, either with the ball or having been the last player to touch it when behind him.
(d) If a player when off-side touch the ball inside the opponents' ten-yard line, the ball shall go as a touch-back to the opponents.

This covers Rule 24 of the old set.
Rule 24. (a) A player is put off-side if, cluring a scrimmage, he get in front of the ball, or if the ball has been last touched by one of his own side behind him. No player can, however, be called off-side in his own goal. No player when off-side shall tonch the ball, or with his hands or arms interrupt or obstruct an opponent until again on-side.

As amencled by Yale and I'rinceton:-
Rule 24. (a) Substitute the following: "A player is put off-side if, during a scrimmage, he get in front of the ball, or if the ball has been last tonched by one of his own side behind him. No player can, however, be called off-side in his own goal. No player, when off-side, shall touch the ball, except on fumble in scrimmage, nor with his hands or arms interrupt or obstruct an opponent, until again on-side."
Sections $b$ and $c$ of Rule 24 remain unchanged.
(b) A player being off-side is put on-side when the ball has touched an opponent, or when one of his own side has run in front of him, either with the ball or having been the last player to touch it when behind him.
(c) If a player when off-side touch the ball inside the opponents' ten-yard line, the ball shall go as a touch-back to the opponents.

The two rules amount to the same thing, the alteration being in the wording, in order to make on and off side play more clear.

Rule 12. The ball is dead.
(a) Whenever the umpire or referee blows his whistle or declares a down.
(b) When a goal has been obtained.
(c) When a touch-down, safety, or touch-back has been made.
(d) When a fair catch has been heeled.
(e) When it has been downed after going out of bounds or into touch-in-goal.

No play can be made while the ball is dead, except to put it in play by rule.

See old Rule 11.
Rule 11. The ball is dead -
I. When the holder has cried down, or when the referee has called a down, or when the umpire has called foul.
II. When a goal has been obtained.
III. When it has been downed after going into touch or touch-in-goal.
IV. When a touch-down or safety has been made.
V. When a fair catch has been made.
VI. When time has been called by the umpire or referee. No play can be made while the ball is dead, except to put it in play by rule.

Here, again, the force of the rule is the same as of old.
Rule 13. (a) The officials of the game shall be an umpire, a referee, and a linesman.
(b) The umpire is the judge of the conduct of the players, and his decision is final regarding fouls and unfair tactics, except in the cases mentioned in (d). The umpire may appeal to both the referee and linesman for testimony in all cases of fouls seen by them, and it shall be their duty to volunteer their testimony in all cases prescribed in 30 (a); but they cannot be appealed to upon these points by the captains or players.
(c) The umpire shall permit no coaching, either by substitutes, coaches, or any one inside the ropes. If such coaching occur, he shall warn the offender, and upon the second offense must have him sent behind the ropes for the remainder of the game.
(d) The referee shall see that the ball is put in play properly, and he shall be judge of its position and progress. He is also the judge of forward passes, and of running with the ball by the quarter-back. His decision is final in all points not covered by the umpire.

The referee may appeal to both the umpire and linesman for testimony upon all points within his jurisdiction.
(e) Both umpire and referee shall use whistles to indicate the cessation of play on fouls and downs.
(f) The linesman shall, under the supervision of the referee, mark the distance gained or lost in the progress of the play, and he shall give testimony as prescribed above. He shall also, under direction of the referee, keep the time, and shall use a stop-watch for so doing.
(g) Only one official representative for each side shall come upon the field of play in case of an accident to a player.

This corresponds to Rules 14 and 15 of the old code.

[^4]"(c) The umpire alone can be appealed to by the captains regarding fouls and unfair tactics.
" (d) No appeal can be made except through the captain.
"(e) The three officials shall formulate ground rules, prior to each game, governing the disposition of the ball in case it tonch or be obstructed by some person or object surrounding the field of play. The referee shall announce such rules to the captains before calling play."
As amended by Harvard, Pennsylvania, and Cornell:-
Rule 14. "There shall be two umpires, a referee, and a linesman, who shall be nominated by the captains and confirmed hy the Faculty A thletic Committees of the respective universities."

Rule 15 . (a) The umpire is the judge of the conduct of the players, and his decision is final regarding fouls and unfair tactics. The umpire may appeal to both the linesman and referee for testimony in cases of umnecessary roughness, off-side play, or holding; but they shall not volunteer their opinion, nor can they le appealed to upon these points by the captains or players.
(b) The referee is judge of the position and progress of the ball, and his decision is final in all points not covered by the umpire.
(c) Both umpire and referee shall use whistles to indicate cessation of play on fouls and downs. The linesman shall use a stop-watch in timing the game.
(d) The umpire shall permit no coaching, either by substitutes, coaches, or any one inside the ropes. If such coaching occur, he shall warn the offender, and upon the second offense must have him sent behind the ropes for the remainder of the game.
(e) The linesman shall, under the advice of the referee, mark the distance gained or lost in the progress of the play, and upon request of the umpire shall give testimony upon any unnecessary roughness or side-play, or holding; but he may not be appealed to by any player or captain. He shall also, under the direction of the referee, keep the time.
(f) Only one official representative for each side shall come upon the field of play in case of an accident to a player.
As amended by Yale and Princeton:-
Fule 15. Substitute the following:
"(a) The umpire is the judge of the conduct of the players, and his decision is final regarding fouls and unfair tactics. The umpire may appeal to both the referee and the linesman for testimony regarding cases of unnecessary roughness and unfair tactics.
"(b) The referee is judge of the position and progress of the ball, and his decision is final in all points not governed by the umpire. He shall have power as in Rule 14, clause $b$.
"(c) Both umpire and referee shall use whistles to indicate cessation of play on fouls and downs. The linesinan shall use a stop-watch in timing the game.
" (d) The umpire shall permit no coaching, either by substitutes, coaches, or any one inside the ropes. If such coaching occur, he shall warn the offender, and upon the second offense must have him sent behind the ropes for the remainder of the game.
"(e) The linesman shall, under the advice of the referee, mark the distance lost or gained in the progress of the play, and upon request of the umpire shall give testimony upon any unnecessary roughness or unfair tactics. He shall, under direction of the referee, keep the time. He shall have power, as in Rule 14 , clause $b$. He cannot be appealed to by the captains on any point whatever.
"(f) Only one official representative for each side shall come upon the field of play in case of an accident to a player."

As amended by Harvard, Pennsylvania, and Cornell :-
Rule 15. "(a) The umpires are the judges of the conduct of the players, and the decision of either is final regarding fouls and unfair tactics. Either umpire may appeal to both linesinan and referee for testimony in all cases of fouls or violations of the rules.
"(b) The referee is judge of the position and progress of the ball, and his decision is final in all points not covered by the umpire. He may appeal both to the linesman and umpires for testimony on all points within his jurisdiction. It shall be his duty to give testimony in all cases of fouls or violations of the rules seen by him to either of the umpires, who shall accept such testimony as conclusive, and forthwith impose the penalty for the offense committed prescribed by these rules.
"(c) The linesman shall, under the advice of the referee, mark the distance gained or lost in the progress of the play, and it shall be his duty to give testimony in all cases of fouls or violations of the rules seen by him to either of the umpires, who shall accept such testimony as conclusive, and forthwith impose the penalty for the offense committed prescribed by these rules. He shall also, under the direction of the referee, keep the time.
" (d) Both umpires and referee shall use whistles to indicate cessation of play on fouls and downs. The linesman shall use a stop-watch to time the game. The linesman shall notify the referee, who shall announce the close of the play in the first half and at the conclusion of the game by blowing his whistle.
"(e) The umpires shall permit no coaching, either by substitutes, coachers, or any one inside the rope; if such coaching occur, he shall warn the offender, and upon the second offense must have him sent behind the ropes the remainder of the game.
"(f) After the game all questions of disqualification shall go before a committee of four, to be chosen by the faculty or athletic committee of the two competing universities - two from each. The committee shall have power to disqualify for the remainder of the season, for a year, or for any longer time, according to its discretion. In case of a tie vote the committee shall choose a fifth member, and the decision of the majority shall be final.
" (g) Only one official representative from each side shall come upon the field of play in case of accident to a player."

Here a few of the duties of the umpire have been given to the referee.

Rule 14. (a) The time of the game shall be seventy minutes, each side playing thirty-five minutes from each goal. There shall be ten minutes' intermission between the two halves. The game shall be decided by the final score at the end of even halves. Either side refusing to play after being ordered to do so by the referee shall forfeit the game. This shall also apply to refusing to begin a game when ordered to do so by the referee. The linesman shall notify the captains of the time remaining for play not more than ten nor less than five minutes before the end of each half.
(b) The time shall not be called for the end of a half until the ball is dead, and in case of a try-at-goal from a touchdown, the try shall be allowed. Time shall be taken out, while the ball is being brought out either for a try, kick-out or kick-off, and when play is, for any reason, suspended.

Is identical with the old version as in Rule 16.

Riule 16. (a) The time of game is seventy mimutes, each side playing thirtyfive minutes from each goal. There shall be ten minutes' intermission between the two halves. The game shall be decided by the final score at the end of even halves. Either side refusing to play after being ordered to by the referec shall forfeit the game. This shall also apply to refusing to commence the game when ordered to by the referee. The linesman shall notify the captains of the time remaining not more than ten nor less than five minutes from the end of each half.
(b) Time shall not be called for the end of a half until the ball is dead; and in the case of a try-at-goal from a touch-down, the try shall be allowed. Time shall he taken out while the ball is being brought out either for a try, kick-ont, or kick-off, and when play is for any reason suspended.

Rule 15. No one wearing projecting nails or iron plates on his shoes, or any metal upon his person, shall be allowed to play in a match. No sticky or greasy substance shall be used on the persons of the players.

Corresponds to Rule 17.
Rule 17. No one wearing projecting nails or iron plates on his shoes, or any metal substance upon his person, shall be allowed to play in a match. No sticky or greasy substance shall be used on the person of players.

Rule 16. The captains shall toss up before the beginning of the game, and the winner of the toss shall have his choice of goal or of kick-off. The same side shall not kick off in two successive halves. The ball shall be kicked off at the beginning of each half, and whenever a goal has been obtained the side which has lost the goal shall kick off. In the case of kick-off, kick-out, and kick from a fair catch, the ball must be kicked a distance of at least ten yards into the opponents' territory, unless stopped by an opponent.

Practically the same as Rule 19.
Rule 19. The captains shall toss up before the commencement of the match, and the winner of the toss shall have his choice of goal or of kick-off. The same side shall not kick off in two successive halves. In all cases where the rules provide for a kick, the ball must be actually kicked a distance of at least ten yards into the opponents' territory, unless stopped by the opponents.

The word "actually" is omitted.
Rule 17. At kick-off if the ball go out of bounds before it is touched by an opponent, it shall be brought back and kicked off again. If it be kicked out of bounds a second time, it shall go as a kick-off to the opponents. If either side thus forfeit the ball twice, it shall go as first down at the centre of the field to their opponents.

Corresponds to Rule 20 of the old code.
liule 20. The ball shall be kicked off at the beginning of each half; and whenever a goal has been obtained, the side which has lost the goal shall kick off. If the ball go into touch before it is touched by an opponent, it shall be brought back and kicked off over again. If it be kicked into touch a second time, it shall go as a kick-off to the opponents.
As amended by Yale and Princeton:-
Rule 20. Substitute the following: "The ball shall be kicked off at the beginning of each half; and whenever a goal has been obtained, the side which has lost the goal shall kick off. If the ball go into touch before it is touched by an opponent, it shall be brought back and kicked off over again. If it be kicked into touch a second time, it shall go as a kick-off to the opponents. If either side thus forfeit the ball twice without it going into the field of play, it shall go as first down at centre of field to opponents."

The clause which was added in the Yale-Princeton amendation has been adopted here to prevent such delay of the game as would occur from repeated kicking into touch.

Rule 18. The side which has a free kick must be behind the ball when it is kicked. At kick-off the opposite side must stand at least ten yards in front of the ball until it is kicked.

Identical with Rule 21 of the old code.
Rule 21. The side which has a free kick must be behind the ball when it is kicked. At kick-off the opposite side must stand at least ten yards in front of the ball until it is kicked.

Rule 19. Charging is lawful for the opponents if the punter advances beyond his line, or, in case of a place-kick, as soon as the ball is put in play by touching the ground.

In case of a punt-out or kick-off, however, the opponents must not charge until the ball is kicked. If opponents charge before the ball is put in play, they shall be put back five yards for every such offense.

Corresponds to Rule 23 of the old code.
Rute 23. Charging is lawful for the opponents if a punter advance beyond his line, or, in case of a place-kick, as soon as the ball is put in play by touching the ground. In the case of a punt-out, however, not until the ball is kicked.

A penalty, it will be seen, is added, directed at unfair or premature charging.

Rule 20. A player may throw or pass the ball in any direction except toward the opponents' goal. If the ball be batted in any direction or thrown forward, it shall go down on the spot to the opponents.

Identical with Rule 28 of the old code.
Rule 28. A player may throw or pass the ball in any direction except toward the opponents' goal. If the ball be batted in any direction, or thrown forward, it shall go down on the spot to the opponents.

Tule 21. (a) If a player having the ball be tackled and the movement of the ball stopped, or if the player cry " down," the referee shall blow his whistle and the side holding the ball shall put it down for a scrimmage. As soon as a rumner attempting to go through is tackled and goes down, or whenever a runner having the ball in his possession cries "down," the referee shall blow his whistle and the ball shall be considered down at that spot. Any piling up on the man after that shall be punished by giving him fifteen yards.
(b) The snapper-back is entitled to full and undisturbed possession of the ball. The opponents cannot interfere with the snapper-back nor touch the ball until it is actually put in play. Infringement of this nature shall give the side having the ball five yards at every such offense.
(c) If in snapping the ball the player so doing be offside, the ball must be snapped again, and if this occur three times on the same down, the ball shall go to the opponents. The man who first receives the ball when snapped back from the down shall not carry the ball forward unless he has regained it after it has been passed to and touched another player.
(d) The man who puts the ball in play in a scrimmage, and the opponent opposite him, cannot pick up the ball until it has touched some third man. "Third man" means any other player than the one putting the ball in play and the opponent opposite him.
(e) If in three consecutive downs (unless the ball cross the goal line) a team shall not have advanced the ball five yards or taken it back twenty yards, it shall go to the opponents on the spot of the fourth down. "Consecutive" means without going out of the possession of the side holding it, except that by having kicked the ball they have given their opponents fair and equal chance of gaining possession of it. No kick, however, provided it be not stopperl by an opponent, shall be considered as giving the opponents a fair and equal chance of possession unless the ball go beyond the line of scrimmage.
(f) If the snapper-back kick the ball, no player of his
side can pick it up until it has gone ten yards into the opponents' territory, unless it be stopped by an opponent.
(g) When the referee or umpire has given a team a distance penalty, the resulting down shall be counted the first down.

Corresponds to Rule 30 of the old code.
Rule 30. (a) If a player having the ball be tackled and the ball fairly held, the man so tackling shall cry "held," the one so tackled must cry "down," and some player of his side put it down for a scrimmage. As soon as a rumner attempting to go through is tackled and goes down, the referee shall blow his whistle, and the ball shall be considered down at that spot. Any piling up on the man after that shall be punished by giving him fifteen yards, unless this carry the ball across the goal line, when he shall have only half the intervening distance. The snapper-back and the man opposite him cannot pick out the ball with the hand until it touch a third hand; nor can the opponents interfere with the snapper-back by touching the ball until it is actually put in play. Infringement of this nature shall give the side having the ball five yards at every such offense. The snapper-back is entitled to full and undisturbed possession of the ball. If the snapper-back be off-side in the act of snapping back, the ball must be snapped again, and if this occur three times on the same down, the ball goes to the opponents. The man who first receives the ball when snapped back from a down shall not carry the ball forward under any circumstances whatever. If, in three consecutive fairs and downs, unless the ball cross the goal line, a team shall not have advanced the ball five, or taken it back twenty, yards, it shall go to the opponents on the spot of the fourth down. "Consecutive" means without going out of the possession of the side holding it, and by a kick giving the opponents fair and equal chance of gaining possession of it. When the referee or umpire has given a side a distance penalty, the resulting down shall be counted the first down.
(b) The man who puts the ball in play in a scrimmage cannot pick it up until it has touched some third man. "Third man" means any other player than the one putting the ball in play and the man opposite him.
(c) No momentum-mass plays shall be allowed. A momentum-mass play is one where more than three men start before the ball is put in play. Nor shall more than three men group for that purpose more than five yards back of the point where the ball is put in play.

As amended by Yale and Princeton:-
Rule 30. (c) Substitute the following: "In scrimmage, not more than one man shall start forward before the ball is in play. Not more than three men shall group themselves at a point behind the line of scrimmage before the ball is in play. Seven men or more shall be on the line of scrimmage until the ball is in play, except that the man playing the position of either end rusher may drop back, provided he does not pass inside the position occupied by the man playing adjacent tackle before the ball is put in play." Other sections of Rule 30 remain unchanged.

As will be seen, a necessary distinction has been made regarding what kicks give the opponents fair and equal chance of possession, and a provision has been made as to the centre-rush kicking the ball forward, stating how far it must go before his side can take it up. The next rule treats of momentum and mass plays.

Rute 22. (a) Before the ball is put in play in a scrimmage, should any player of the side which has the ball take more than one step in any direction he must come to a full stop before the ball is put in play.

Exception: One man of the side having the ball may be in motion toward his own goal without coming to a stop before the ball is put in play.
(b) When the ball is put in play, at least five players must be on the line of scrimmage.
(c) If, when the ball is put in play, five players, not including the quarter-back, be behind the line of scrimmage and inside of the positions occupied by the players at the ends of said line, then two of these players must be at least five yards back of this line. But all of these players may be nearer than five yards to the line of scrimmage if two of them are outside of the positions occupied by the players at the ends of said line.

See Rule 30 of the old code, printed above.
Rule 23. If the ball goes out of bounds, whether it bound back or not, a player of the side which touches it down must bring it to the spot where the line was crossed, and there either
I. Touch it in with both hands, at right angles to the side line, and then kick it ; or,
II. Walk out with it at right angles to the side line, any distance not less than five nor more than fifteen yards, and there put it down for a scrimmage, first declaring how far he intends walking. The man who puts the ball in must face the field or the opponents' goal, and he alone can have his foot outside the side line. Any one, except him, who puts his hands or feet between the ball and his opponents' goal is off-side.

Is identical with Rule 31 of the old code.

[^5]touch line. Any one, except him, who puts his hands or feet between the ball and his opponents' goal is off-side.

Rule 24. A side which has made a touch-down in their opponents' goal must try-at-goal, either by a place-kick or a punt-out. If the goal be missed, the ball shall go as a kick-off at the centre of the field to the defenders of the goal.

Is identical with Rule 32 of the old code.
Rute 32. A side which has made a touch-down in their opponents' goal must try-at-goal, either by a place-kick or punt-out. If the goal be missed, the ball shall go as a kick-off at the centre of the field to the defenders of the goal.

Rule 25. (a) If the try be a place-kick, a player of the side which has touched the ball down shall bring it up to the goal line, and, making a mark opposite the spot where the ball was touched down, shall bring it out at right angles to the goal line any desired distance, and there place it for another of his side to kick. The opponents must remain behind their goal line until the ball has been placed upon the ground.
(b) The placer in a try-at-goal may be off-side or out of bounds without vitiating the kick.

Corresponds to Rule 33 of the old code.


#### Abstract

liule 33. (a) If the try be by a place-kick, a player of the side which has touched the ball down shall bring it up to the goal line, and, making a mark opposite the spot where it was touched down, bring it out at right angles to the goal line such distance as he thinks proper, and there place it for another of his side to kick. The opponents must remain behind their goal line until the ball has been placed on the ground. (b) The placer in a try-at-goal may be off-side or in touch without vitiating the kick.


Very slight change in wording ouly.
Rule 26. If the trial be by a punt-out, the punter shall bring the ball up to the goal line, and, making a mark opposite the spot where it was touched down, punt out to another of his own side from any spot behind the line of goal and not nearer goal than such mark. The players of his side must stand in the field of play not less than fifteen feet from the goal line. If the touch-down be made in touch-ingoal, the punt-out shall be made from the intersection of the goal line and the side line. The opponents may line up anywhere on the goal line except in the space of five feet on each side of the punter's mark, but they cannot interfere with the
punter. The punter camnot touch the ball after kicking it until it strikes or is touched by some other player. If a fair catch be made from a punt-out, the mark shall serve to determine the position as a mark of any fair catch. If a fair catch be not made on the first attempt, the ball shall go as a kick-off at the centre of the field to the defenders of the goal.

Corresponds to Rule 34 of the old code.
liule 34 . If the try be by a punt-out, the punter shall bring the ball up to the goal line, and, making a mark opposite the spot where it was touched down, punt out from any spot behind the line of goal, and not nearer the goal post than such mark, to another of his own side, who must all stand in the field of play not less than fifteen feet from the goal line. If the touch-down be made in touch-in-goal, the punt-out shall be madle from the intersection of the goal and the touch lines. The opponents may line up anywhere on the goal line except the space of five feet on each side of punter's mark, but cannot interfere with the punter, nor can he touch the ball after kicking it until it strikes or is tonched by some other player. If a fair catch be made from a punt-out, the mark shall serve to determine positions as the mark of any fair catch. If a fair catch be not made on the first attempt, the ball shall go as a kick-off at the centre of the field to the defenders of the goal.

An immaterial alteration in the wording.
Rule 27. A side which has made a touch-back or a safety must kick out, except as otherwise provided, from not more than twenty-five yards outside the kicker's goal. If the ball go out of bounds before striking a player, it must be kicked out again, and if this occur twice in succession it shall be given to the opponents as out of bounds on the twenty-five-yard line on the side where it went out. At kick-out, the opponents must be on the twenty-five-yard line or nearer their own goal, and the kicker's side must be behind the ball when it is kicked, or be adjudged off-side. Should a second touch-back occur before four downs have been played, the side defending the goal may have the choice of a down at the twenty-five-yard line or a kick-out.

Exception: Whenever a side has tried a drop-kick at the goal upon a first down inside the twenty-five-yard line, and the result has been a touch-back, the line of kick-out shall be the ten-yard instead of the twenty-five-yard line, in determining the position of the opponents, and the kicker's side must be behind the ball when it is kicked.

## Corresponds to Rule 35 of the old code.

Rule 35. A side which has made a touch-back or a safety must kick out, except as otherwise provided, from not more than twenty-five yards outside the kicker's goal. If the ball go into touch before striking a player, it must be kicked out again; and if this occur twice in succession it shall be given to the opponents as in touch on the twenty-five-yard line on the side where it went out. At kick-out, the opponents must be on the twenty-five-yard line or nearer their own goal, and the kicker's side must be behind the ball when kicked, or be adjudged off-side. Should a second touch-back occur before four downs have been played, the side defending the goal may have the choice of a down at the twenty-five-yard line or a kick-out.

Exception. . . . Whenever a side has tried a drop-kick at the goal upon a first down inside the twenty-five-yard line, and the result has been a touch-back, the line of kick-ont shall be the ten-yard instead of the twenty-five-yard line, in determining the positions of the opponents, and the kicker's side must be behind the ball when it is kicked.

## "In touch" changed to " out of bounds."

Rule 28. The following shall be the value of each point in the scoring : -

Goal obtained by touch-down . . . . 6
Goal from field-kick . . . . . 5
Touch-down, failing goal . . . . . 4
Safety by opponents . . . . . 2
Identical with Rule 36 of the old code.
Rule 36. The following shall be the value of each point in the scoring :-
Goal obtained by touch-down
Goal from field-kick
Touch-down, failing goal
Safety by opponents
Rule 29. Before the ball is put in play no player shall lay his hands upon, or, by the use of his hands or arms, interfere with an opponent in such a way as to delay putting the ball in play. After the ball is put in play, the players of the side that has possession of the ball can obstruct the opponents with the body only, except the player who runs with the ball. But the players of the side not having the ball can use their hands and arms to push their opponents out of the way.

Corresponds to Rules 25 and 10 of the old code.
Rule 25. No player shall lay his hands upon, or, by the use of his hands or arms, interfere with an opponent, unless he himself or that opponent has the ball. That is, the players of the side which has possession of the ball can obstruct the opponents with the body only. But the players of the side which has not the ball can use the hands and arms, as heretofore; that is, to push their opponents out of the way in breaking through when the ball is snapped.

As amended by Harvard, Pennsylvania, and Cornell : -
Rule 25. "No player shall lay his hancls upon, or by the use of his hands or
arms interfere with, an opponent before the ball is put in play. After the ball is put in play, the players of the side that have possession of the ball can obstruct the opponents with the body only, except the player who runs with the ball. But the players of the sille which has not the ball can use hands and arms to push the opponents out of the way in breaking through."
Rule 10. Foul interference is using the hands or arms in any way to obstruct or hold a player who has not the ball. This does not apply to the man running with the ball; that is, the runner may push off his adversaries.

In effect, the rule prevents any pulling of men off-side or other "scrapping" in the line, of such a nature as would cause the centre to wait and not put the ball in play.

Rute 30. (a) A player shall be disqualified for unnecessary roughness, hacking, or striking with the closed fist.
(b) If a player be disqualified or injured, a substitute shall take his place. The player thus replaced cannot return to further participation in the game.
(c) For the offenses of throttling, tripping, or tackling below the knees, the opponents shall receive fifteen yards, or a free kick, at their option. In case, however, the fifteen yards will carry the ball across the goal line, they may have half the distance from the spot of the offense to the goal line, but shall not be allowed a free kick.
Corresponds to Rules 27 and 13 of the old code.
Rule 27. (a) A player shall be disqualified for unnecessary roughness, hacking, or striking with closed fist.
(b) For the offenses of throttling, tripping up, or intentional tackling below the knees, the opponents shall receive twenty-five yards, or a free kick, at their option. In case, however, the twenty-five yards would carry the ball aeross the goal line, they can have half the distance from the spot of the offense to the goal line, and shall not be allowed a free kick.

Rute 13. The game shall be played by teams of eleven men each, and in case of a disqualified or injured player, a substitute shall take his place. Nor shall the disqualified or injured player return to further participation in the game.

The wording is slightly altered, but the intent and effect are the same.

Rule 31. (a) A foul shall be granted for any violation of the rules, unnecessary delay of the game, off-side play, or holding an opponent, unless he has the ball. No delay arising from any cause whatsoever shall continue more than three minutes.
(b) The penalty for fouls, except where otherwise provided, shall be, when the offending side has the ball, the immediate surrender of it to the opponents for a down ; or,
when the offending side has not the ball, the advance of the ball ten yards.
(c) The offended side may refuse to accept the penalty where it is to its disadvantage. But in the case of a run resulting, should it be over fifteen yards, that distance shall be the limit allowed.
(d) Whenever the rules provide for a distance penalty, if the distance prescribed would carry the ball across the goal line, one half the intervening distance shall be given.

Corresponds to Rules 26 and 3 of the old code.
Rule 26. (a) A foul shall be granted for intentional clelay of the game, offside play, or holding an opponent, unless he has the ball. No delay arising from any cause whatsoever shall continue more than three minutes.
(b) The penalty for fouls or violations of rules, except where otherwise provided, shall be, when the offending side has the ball, the immediate surrender of it to the opponents for a down, or, when the offending side has not the ball, the advance of the ball ten yards. In this, as in other penalties of a similar nature, if the distance given would carry the ball across the goal line, only half the intervening distance shall be given.
(c) The offended side may refuse to accept the penalty where it is to its disadvantage; but in the case of a run resulting, should it be over fifteen yards that distance shall be the limit allowed.
Rule 3. A foul is a violation of any rule.
The order and wording slightly altered.

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AR D D 1900



[^0]:    1 The English word "scrummage" has been converted on this side of the ocean into "scrimmage."

[^1]:    "A touch-down is when a player, putting hishand on the ball in touch or in goal, stops it so that it remains dead, or fairly so."

[^2]:    1 The use of the word "strategy" in connection with football operations is never technically correct. Strategy can only be applied to the movements which are made when no enemy is in sight. The moment that the enemy is in sight, the proper term for such operations is "tactics." However, inasmuch as, in football, the opponents are always in sight, the use of the word "strategy" is technically impossible. It is only used in this connection by virtue of the license which it has obtained from repeated use, by other writers, in the last two or three years.

[^3]:    Rule 2. (a) In touch means out of bounds.
    (b) A fair is putting the ball in play from touch.

    Rule 18. The ball goes in touch when it crosses the side line, or when the holder puts part of either foot across or on that line. The touch line is in touch, and the goal line is in goal.

[^4]:    Rule 14. There shall be an umpire, a referee, and a linesman.
    As amended by Yale and Princeton:-
    Rule 14. Substitute the following:
    "(a) The officials of the game shall be an umpire, a referee, and a linesman. The linesman shall liave an assistant.
    "(b) Any official may disqualify a player under the rules, subject to the approval of the umpire.

[^5]:    Rule 31. If the ball goes into touch, whether it bounds back or not, a player of the side which touches it down must bring it to the spot where the line was crossed, and there either
    I. Touch it in with both hands, at right angles to the touch line, and then kick it; or,
    II. Walk out with it at right angles to the touch line, any distance not less than five nor more than fifteen yards, and there put it down for a scrimmage, first declaring how far he intends walking. The man who puts the ball in must face the field or the opponents' goal, and he alone can have his foot outside the

