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**Baseball as Educational Means.**

**By**

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**A.B. 1915**

**THESIS**

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**Approved** -----  
**Instructor in Charge**

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Letter of Introduction to the Board

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Sincerely,  
[Signature]

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## INTRODUCTION.

### WIDESPREAD INTEREST IN THE GAME.

Baseball has been and will continue to be dubbed the national pastime of the American people on account of the widespread interest that is taken in it as a game, both from the standpoint of the participant and from the standpoint of the spectator. From the time a boy gets big enough to handle a ball one may see him in the streets batting, throwing and catching, and from then on until the time of manhood is reached he is at this same batting, throwing and catching at every possible moment. It matters not when he is young what the type of ball, glove or bat is so that it is one. The streets and vacant lots are fairly teeming with young Americans in the spring and summer months, and it is in this very youthful stage that the boy acquires for himself the most fundamental co-ordinations that make him a baseball player in his adolescence and maturer years. His whole heart and soul is wrapped up in his devotion to the game. He watches the elder players work and apes them, and there is a constant controversy arising as to the proper method of doing this, that and the other. One young fellow says, "This way is right because it is the way so-and-so does"; and the other boy says, "No, this way is right because I saw so-and-so doing it this way". So the argument continues.

We could go into great detail as to the number of "fans" who are interested in this nation-wide game, but our principal concern is with the participant, the boy of high school age whose life is yet ahead of him and whose play, by means of the game, can be made to become of educational value to him. A few figures, however, will suffice to show how the interest manifests itself.

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In 1911 it was estimated that there were more than 60,000 baseball teams or clubs in this country with an actual participation of approximately 750,000 men and boys over 12 years of age.\* It has also been estimated that there is not a person in one hundred over fourteen years of age in the United States who does not at least understand the basic principles of the game, and scarcely one native-born American in a thousand who has not at some time played the game. The countless thousands who attend baseball games throughout the country during the summer months are a tribute to the fact of the national scope of the game. Every town, village and hamlet, city, college and school has its baseball team, besides great numbers of churches, young men's clubs and the like.

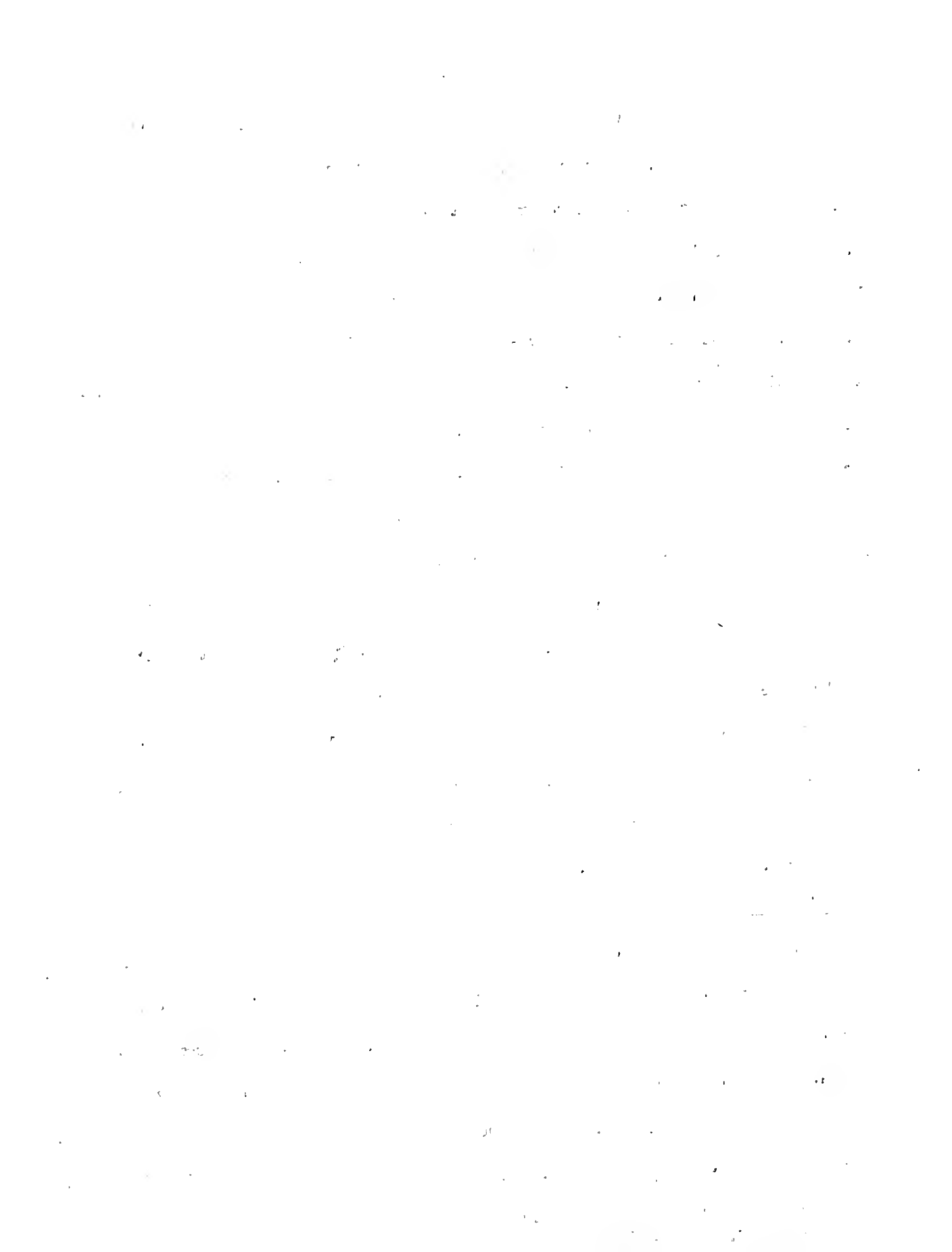
The game in America has reached a stage that might almost be likened to the feudal period of Europe. Witness the loyalty and support accorded a city's baseball team at the present day and compare this with that same kind of loyalty which was accorded the bands of warriors of mediaeval Europe. Often times this pride, enthusiasm and loyalty waxes very warm, for example, when teams from rival towns are playing a hotly-contested championship game or series.

#### BRIEF HISTORY.

The origin of the game is somewhat obscure. \*\* Some authorities say that it was derived from the old English game of "rounders", several variations of which were played during the colonial period. \*\* Others say that its resemblance to "rounders" is merely a coincidence and that it had its origin in Cooperstown, N.Y. in 1839 when Abner Doubleday, a West Point cadet, devised a scheme for playing it. \* Doubleday was afterwards a brigadier

\* Touching Second - Evers and Fullerton

\*\* Encyclopedia Britannica.



general in the army and famous as a mathematician. He organized a team of seven boys to play the game, first against two batters, then against any number present and not engaged in fielding. He calculated the distance between bases as ninety feet, the wisdom of which is vouched for by the experts of to-day.

We need not go into very much detail as to the history of the game between 1839 and the present time, but a few facts should be taken into account. \* The first organized baseball was played in 1843 by the Washington Baseball Club. The famous Knickerbocker Club which played around New York City devised the first code of rules. With the organization of the National Baseball Association in 1858, there came an approach to uniformity in the rules at least. A few simple laws were laid down similar to those which now exist, except that the underhand toss was in vogue and the ball was larger and more lively.

The rise in popularity of the game was rapid about this time and there were organized many famous clubs, such as Beacon and Lowell of Boston and the Red Stockings of Cincinnati. The intense rivalry brought semi-professionalism and with the spread of the game came certain undesirable elements and adjuncts such as betting and pool-selling. Players were not above selling contests if it seemed worth while.

In 1867 there was held in Philadelphia a convention for reformation, at which about 500 organizations were represented. This convention accomplished certain reforms and the sport grew rapidly in the eastern and middle-western portions of the United States.

In the next five years the interest became so great that it was decided

\* Encyclopedia Brittanica.





to send teams to England. Boston and the Athletics gave exhibitions in England, but the trip did not succeed in popularizing baseball in Great Britain. Fifteen years later two teams made a tour of the world including Australia and various other countries and completing the trip by a contest in England. This, however, had little effect on England as have also later attempts. The game, on the other hand, continued to prosper in America.

The first entirely professional club was formed in 1868, the Cincinnati Red Stockings. In 1871 came the formation of two national associations, one of professionals, the other of amateurs. Soon after this in 1876 came the formation of a National League of eight teams under the presidency of Nicholas E. Young, which contained all the experts of the country. So popular did this league become that another was formed in 1882 known as the American Association. Rivalry naturally sprang up, and a conference and an agreement were necessary before harmony was restored. These two leagues controlled baseball for many years, although in 1890 the formation of a brotherhood of players called the Players' League, devised to secure benefits going to managers, tried to overthrow authority. The Players' League, however, was not sufficiently strong and fell to pieces after a few years.

The National League at first consisted of twelve teams, but in 1900 was reduced to eight, exactly as it stands to-day. Certain aggressive and dissatisfied elements took advantage of this change to organize a second great professional association, the American League, of eight clubs, six of them in cities where the National League was already represented. The development of interest in the game during the last eighteen years has been remarkable and rapid.



BASEBALL A SCIENTIFIC STUDY.

Baseball is a scientific study from beginning to end. The playing field is laid out with such geometric exactness that both offensive and defensive teams have an equal chance. Speed of foot and power of arm must be taken into consideration in every close play and no doubt those who calculated the distance between bases and between home plate and the pitcher's plate exercised very close study of the laws of physics and mathematics. \*For, if first base was ninety-two feet from the home plate instead of ninety, baseball would be ruined because in the present high development of the game, two feet additional distance would make it almost impossible for a team to score. Similarly, if the distance between the bases was eighty-eight feet, the scores would run into double figures in almost every game. The distances have been so calculated and the players so distributed, that each of the nine men on defensive has exactly the amount of ground to cover that the fastest runner possibly can cover with a flying start. Because the game involves quick thinking, a high degree of generalship and brain work, and permits of great physical skill, it attracts not only lovers of athletics but also many who ordinarily care little for other sports and games.

\* TOUCHING SECOND - Evers and Fullerton.

The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that proper record-keeping is essential for ensuring transparency and accountability in financial matters.

In addition, the document outlines the various methods and tools used to collect and analyze data. It highlights the need for consistent and reliable data sources to support informed decision-making and strategic planning.

The second part of the document focuses on the implementation of these practices and the challenges that may arise. It provides practical advice on how to overcome common obstacles and ensure the successful execution of the proposed initiatives.

Finally, the document concludes by summarizing the key findings and recommendations. It reiterates the importance of ongoing monitoring and evaluation to ensure that the implemented measures continue to meet the organization's needs and objectives.

## Part I.

### EDUCATIONAL RESULTS THAT MAY BE SECURED THROUGH BASEBALL.

Aside from the purely monetary standpoint of the professional baseball player, there must be something back of it all to lead the thousands on and on each year in their study of this scientific sport. Hundreds of writers have gone to great lengths to show that there is educational value in sport, athletics if you please, and to justify their arguments. They have shown that physical, mental and moral values arise which are very hard to obtain in the ordinary run of life, that when the boy is on the athletic field he is and acts his true self and that if only there is some one at hand to direct this true self into the right channels and along educational and moral lines, then, besides the physical and mental powers which accrue from sport, come the moral ones.

A teacher and a leader then is essential above all things else. This leader must have sound pedagogical training plus a necessary aptitude for the game he expects to teach, the more the better, but above all he must study his subject from every possible angle as well as those whom he is directing in that subject. Baseball is such an intricate game that no matter how much the study, something would be lacking in the teacher if he had not had actual experience in play, if he had not at some time gone through the trying experiences of learning control of the ball, of getting used to the bound and of getting his eye on the ball. The boys whom the leader is instructing are going through the same experiences, and how easily their faults are seen when one has passed through just such a time as they are having. The more actual experience with a game the teacher has had, the

The following table shows the results of the regression analysis for the dependent variable 'Sales' across different regions and time periods. The independent variables include 'Advertising Spend', 'Price', and 'Seasonality'. The coefficients represent the estimated impact of each variable on sales, with standard errors in parentheses below the coefficients. The R-squared value for each model indicates the proportion of variance in sales explained by the independent variables.

Region	Time Period	Advertising Spend	Price	Seasonality	R-squared
North America	Q1 2023	0.45	-0.12	0.08	0.78
		(0.05)	(0.02)	(0.01)	
	Q2 2023	0.52	-0.15	0.10	0.82
		(0.06)	(0.03)	(0.01)	
Europe	Q1 2023	0.38	-0.10	0.06	0.72
		(0.04)	(0.02)	(0.01)	
	Q2 2023	0.42	-0.11	0.07	0.75
		(0.05)	(0.02)	(0.01)	
Asia	Q1 2023	0.55	-0.18	0.12	0.85
		(0.07)	(0.04)	(0.02)	
	Q2 2023	0.60	-0.20	0.14	0.88
		(0.08)	(0.05)	(0.02)	
South America	Q1 2023	0.30	-0.08	0.04	0.68
		(0.03)	(0.02)	(0.01)	
	Q2 2023	0.35	-0.09	0.05	0.70
		(0.04)	(0.02)	(0.01)	

more he can help boys with their troubles.

Many "fans" on the bleachers who think they know how the game is played, who see it from a distance and who may watch many hundreds of games and study from long range, can never know what actualities are until they feel the plays out on the field. One would have done this; another would have done that, and so it goes; each thinking that his vast experience in being merely a spectator enables him to judge.

Before the teacher has any place in the scheme of things, however, there must be the material with which to work. I speak of the teacher first because of the neglect of this phase and because of the importance which should be attached to it. The plastic boyhood of high school age is the material, but though the material may be in every high school, it does not show itself on the athletic field. Our next problem then is, "How to get the boys on the athletic field for baseball". Is this really a problem when one considers that it is a natural tendency acquired in babyhood for a child to throw? As the years go by he sees the older boys and the big brother in this throwing instinct. No, the problem lies not in getting the boys out on the field, although I deal with this in another portion of the thesis. They will come readily enough when given the opportunity as is borne out by the statistics of boys playing baseball. Yet when they do come, is there not a problem of how to make their baseball experiences a part of their lives? There lies the problem. "How can I make Tom's life more active, more worth living, a cleaner, better life, a life more fitted for service, a training for citizenship?" That is the problem which should be facing every director of athletics.





Because of the widespread interest, because of the natural tendencies of boys to throw and bat, because of the fact that baseball does not require over-exertion and a severe training season, such as football for example, it is peculiarly adapted to the working out of this problem which has just been mentioned. The coach then must realize just what he is dealing with and keep this uppermost in his mind. It is not the making of a championship interscholastic team that need bother him, but the making of the lives of citizens more worth while to the community.

We may look upon baseball as educational means from the three common standpoints, (1) From the physical, (2) From the mental and (3) From the moral. In respect to these baseball has an advantage over academic studies for, at least, only two standpoints are brought forward in an academic subject. I do not wish to be understood as saying, however, that because of this fact academic studies are inferior or that athletics are superior in their training of the capacities. There is really no fair common ground on which to compare the two, but both are essential and my argument here will deal with athletics properly directed and particularly with baseball.

#### BASEBALL AND THE PHYSICAL BEING.

Until very recent years mental education was the only thing thought necessary. Education was meant for a chosen few, was not intended to prepare men for life - was only an intellectual and cultural training.

The Italian physiologist, Mosso, showed by an ingenious device that when a person lying quite still was required to add a column of figures, blood left the extremities and flowed toward the brain. Any emotional state or effort of thought produces the same result. This demonstration that we "think to our finger's ends", suggests the importance of a strong

... ..

body as a prompt support in mental work. Thinking is primarily a physical process and draws upon the vital stores of every organ. The energy that makes clear thinking possible depends largely upon the vigor of the body, and to the extent that this fails, the brain functions suffer. Therefore, any work mental or physical, will be done better if the body is strong.\*

As we move about in the world it is not great strength that we wish to acquire but agility, that capacity to make our bodies respond to command, to co-ordinate properly. Great strength, except in a very few instances, is not an every<sup>-day</sup> article of use, so why acquire it in preference to the ability to use the body as one wishes. No great strength is required in the playing of baseball, but other abilities far outweighing that seeming advantage are. One learns how to control one's weight in every possible position, with feet on the ground, with body on the ground and in the air with feet off the ground.

The infielders must be able to come in at top speed after a ball, bend down and scoop it on the run, throwing from the same position. They must be at a certain spot at a certain time and have that ever in mind. The same applies to almost any position. Players must learn to leave their feet and reach up to get a ball in the air, coming down in such a position that throwing will be possible and probably so that one of their feet at least will touch a base. Again, a slide must be made. The player must know how to throw himself to the ground in such a manner that his progress will not be suddenly stopped, but so that he will continue to a certain definite spot and so that, when that point is reached, he may immediately regain his feet without much effort or struggle should he care to keep on going.

\* Dr. J. H. McBride - Physical Training as Mental Training.  
Sci. Monthly 1:56-65.

NOTE

Think of the intricate co-ordination necessary to even throw a ball so that the thrower will know exactly where it is going, and of the co-ordination at the other end when a pair of hands are put out to catch the fast-moving object. In catching, more often it happens that the catcher is running at a rate of between fifteen and twenty miles per hour and the ball is traveling between forty-five and seventy-five miles per hour, sometimes both in the same direction, sometimes in the <sup>opposite</sup> direction. The accuracy of judgment with which the muscles and eyes are trained in this sport is wonderful when one stops to reflect on it.

Again, the batter stands waiting for a pitched ball coming perhaps between sixty and seventy-five miles an hour and the eye is so trained that after it has traveled for less than a second he is able to hit it. But that is only a circumstance. Suppose the ball when within three feet of the plate and going at the same rate of speed takes a sudden jump to the side or down and still the batter is able to adjust his line of vision and hit it. Is more accurate work with the eye anywhere else obtainable?

The remarkable power of co-ordination needed in playing baseball may be excellently illustrated by citing the example of throwing as regards distances. To be able to throw is of course essential, but to be able to throw ninety, one hundred twenty-seven and up to two hundred feet with ease and accuracy are things which really count. The nice adjustment in these throws is remarkable. A player must be able to judge distance accurately and, knowing the distance, must feel the throw in his arm, and not only arm alone, for to be able to throw distances with speed requires that the body-weight be so adjusted that it will be gotten into the throw.

• 1970-1971

1971

• 1972-1973

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• 1974-1975

1975

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1976

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1977

• 1978-1979

1979

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This is true of all positions and players. Especially professional players have found that if the body-weight is not rightly adjusted, the throwing arm soon wears out on account of the great strain placed upon the arm in speedy throws or in long distance throws, as from an outfielder to the plate. The pitcher, on account of the strain on the throwing arm, will, if properly coached, learn how to use other muscles, muscles of the back and chest besides those of the leg. Pitchers who get their weight into the throw properly strain the muscles of the arm very little. After showing players how to throw with their bodies, so to speak, I have had many come to me the next day and say that the muscles of their back were sore - meaning technically the trapezius, the latissimus dorsi and the infra-spinatus. They did not know that they had used these muscles in throwing, and wondered at the cause of their soreness. But besides these somewhat finer adjustments there is the larger, general reaction that is obtained through the use of the large muscle groups in running, starting, stopping, bending, turning and the like.

In order for a sport to be exceedingly beneficial physically it must make use of all the large muscle groups of the body and it would be well perhaps to give a chart showing these groups and also showing what phases or aspects of baseball make use of these muscles. If it is found upon examination that these groups are worked with reference to the agile handling of ones body, then baseball may be judged to be a game exceedingly worth while from the physical standpoint.





CHART SHOWING THE LARGE MUSCLE GROUPS WORKED IN BASEBALL AND THE PHASE OF  
BASEBALL GIVING THESE ACTIONS.

<u>Large Muscle Groups</u>	<u>Phase of Baseball using these groups.</u>
Flexors of the fore-arm.	Throwing, catching, batting, running.
Extensors of the fore-arm.	Throwing, catching, batting, running, tagging runner.
Muscles of the hand.	Fingering ball to throw and catch; gripping the ball; gripping the bat.
Muscles of the shoulder and chest.	Arm action in throwing, catching, running and batting.
Muscles of the upper back.	Running, throwing, batting, stretching with arms for balls not within easy reach.
Muscles of the neck.	Bending forward to get ground ball or looking up to catch ball.
Muscles of the lower back.	Bending forward, backward and sideward to reach balls thrown or batted on the ground.
Muscles of respiration.	Running, etc.
Abdominal muscles.	Turning, bending, uprighting oneself, etc.
Muscles of buttocks and loin.	Act in conjunction with the legs in running, bending, shifting weight, etc.
Muscles of thigh.	Running, stopping suddenly, weight control, stretching, etc.
Muscles of the leg.	Same as above, shifting.
Muscles of the foot.	Running, weight control, starting, stopping, shifting.

I have noticed a tendency on the part of baseball players to maintain a sort of a slouch position on the field and attribute this to the position they take with hands on knees when on the field. I feel that while it would be serious if persisted in, yet if the director is watchful, he may make suggestions which will eliminate carrying the slouch position at



least further than the baseball field.

Baseball is a game in which one is not in action all the time and it is necessary that the boys be urged to cool off only when wearing some extra jersey or sweater. Bare arms are not desirable on the baseball field for the reason that the arm is one of the vital parts in the playing of the game. The arms should be fully protected by woolen shirts or jerseys. These physical drawbacks should be looked after properly and no harm will result. Otherwise, the slouch position may become habitual or muscle stiffness a serious contracture in the arms. It is best to keep the boys busy at some work all the time. Let "NO IDLE MOMENTS" be your motto.

#### THE MENTAL SIDE OF BASEBALL.

At the outset let us ask ourselves some questions. Is baseball of any advantage mentally? Is there any training of the mind in baseball? Is there any mental training in the actual playing of the game?

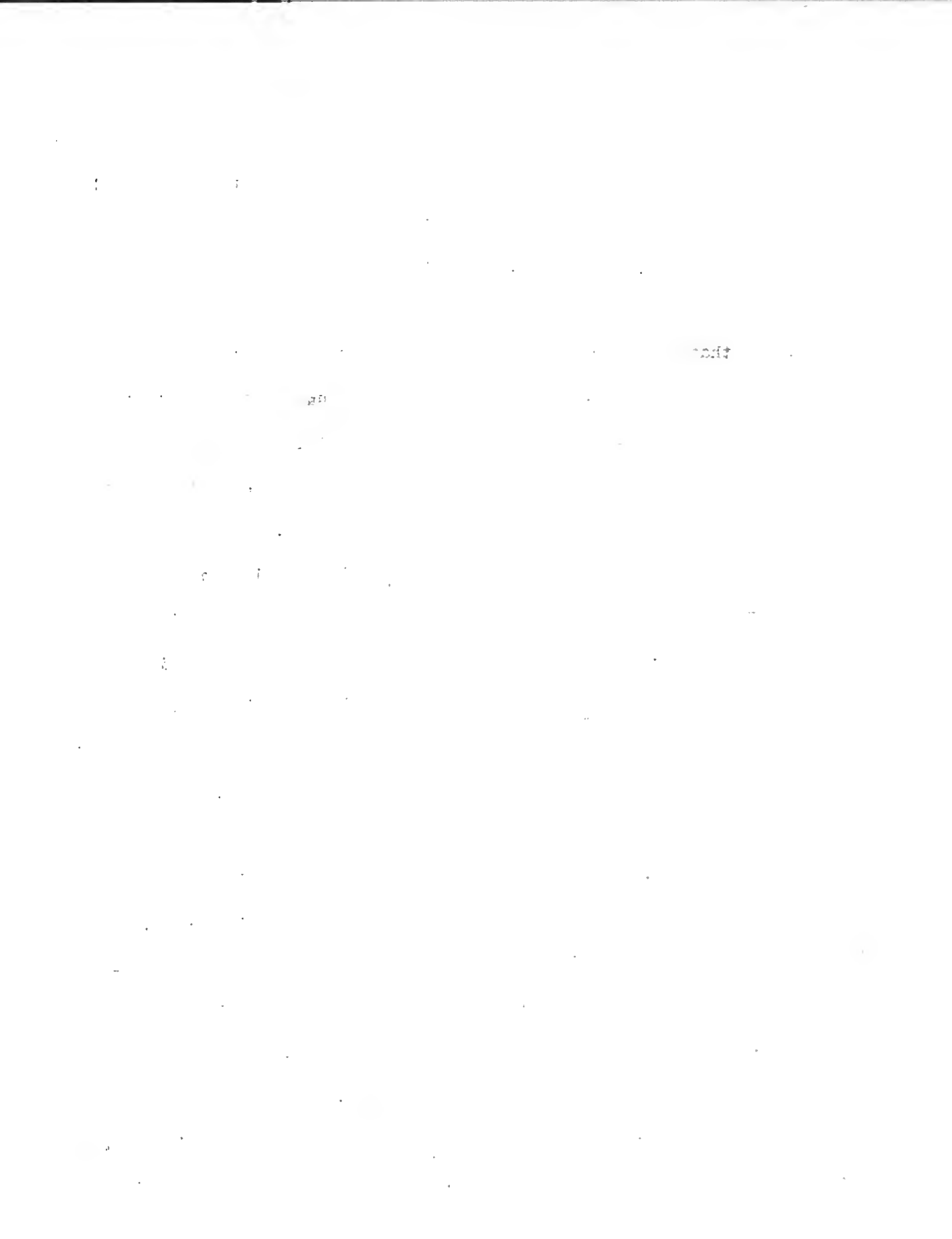
One of the best known methods of mental training comes in the form of the solving of problems and difficult situations, in being able to adapt oneself readily to conditions, in being able to grasp situations and take immediate advantage of them. There is a tendency on the part of some of our present-day thinkers to argue that thinking of this type, namely that used in the playing of athletic games, will not fit boys for the thinking that is required in the more serious problems of life. Dewey has shown conclusively, I believe, that the type of thinking required in one thing does not necessarily aid in any other activity. That does not detract, however, from the fact that good, clear-cut thinking of any sort is of



great value to the individual in whatever direction the trend of thought lies.

Innumerable examples may be cited in baseball to show what difficult situations arise that require immediate dispatch, and I wish to take time here to call to mind some of them. There is no question in my mind, from my close association with the game both as a player and as a coach and teacher, but that a highly developed brain mechanism for quick thinking in baseball is established. Whether or not this actually aids the individual in the business of life, I cannot say, as the material for such a statement is not at hand. It is certain, however, that there is a growth in thinking power on the diamond, for I have seen it time and again. Boys have come out who were slow thinkers and have developed in their thinking power very materially - at least have shortened up the time it takes for their brains to function normally. I have also noticed that the boys who are quick thinkers in baseball are rapid calculators in their academic work, but here again there is nothing proved particularly outside of the fact that there is some rapid-fire work for the brain in the playing of baseball.

Consider for a moment the situation which confronts a batter as he steps up to the plate. Every incentive that can awaken the intellect is acting upon him. He feels that he represents his team and his school. Let him make a good hit and he wins applause; but let him fail and he is reproached by himself, if not by his team mates. Suppose there is a runner on second base, two out and one run needed to win the game. There is a great weight of responsibility on the batter's shoulders. If he becomes nervous or over-anxious to hit, there will be a greater chance of his striking out; but, if he can remain cool and collected, he has a better chance of hitting



safely or of making the pitcher nervous and of getting a base-on-balls. Now his previous training shows up. If he is cool, he has been trained to meet this particular situation, he has been given great responsibility before and knows what it is; if he is nervous and excited and strikes at wide balls, his training has been neglected and he is lost before he ever steps up to the plate. It is not the winning of this particular ball game that we care so much about, but it is the fact that this boy can face situations under stress and be cool and collected, and size up the situation. He may not win the game even with all his composure. His hit may be straight into a fielder's hands and may be an easy out for some one on the defense, but, if he is at his best and has put his best efforts into his hit, then we will feel satisfied at the result.

There may be three men on bases and nobody out, and the score tied or one run needed to tie, or some such situation. The ball is hit to the shortstop. It is a sharp grounder and his mechanical ability enables him to stop and pick up the ball with accuracy. There are five situations confronting him then:-

- (1) He may throw to home plate if the runner from third base can still be caught.
- (2) He may throw to second for a double play, if he thinks that the run at the plate cannot be cut off, and if he sees that the second baseman is covering the base.
- (3) There may be a possibility of touching the runner from second to third before either of these plays are started.
- (4) Possibly there is a chance of throwing to third and getting the runner there in time for the third baseman to relay to home and catch the





man at the plate.

(5) Or the runners may all be advanced to such an extent that the only runner that can be caught is at first base.

In other words, the shortstop must consider these five possibilities before him as well as take into consideration his own position and the position of all the players, and make his decision accordingly in a fraction of a second.

So on throughout the game, there are nearly always four or five possibilities of action for the player, and he must make a decision in a small fraction of a second, probably while he is in the act of picking up the ball, if he is to be considered a really first rate player. One glance at the field is all that is necessary for the boy to make up his mind where the possibilities lie, and then, if he decides wrongly, he runs the risk of being set down as a second-rater or a slow thinker. Everywhere there is required of the boy not only expert mechanical ability, but courage, concentration, alertness, skill and self-control.

The ability to solve problems comes to the team as a whole in the study of the opposition. The defensive team must continually try to fathom the offense and vice-versa. If, for example, the defense thinks that the offense is going to try the famous "squeeze play", then they must play accordingly, each man of the infield having specific duties to perform and the pitcher, third and first basemen coming in to a focus approximately where they expect the ball to be hit. Or the pitcher may throw a waste ball and attempt to catch the runner between third and home. On the other hand, the opposition will attempt to fool the defense by making it appear that the play is going to be attempted on each pitched ball, and as



a result soon have the pitcher in the "hole".

On a sacrifice-bunt it is often the plan for the defense to "lay" for the man going to second by having the pitcher put the ball directly over the plate and play accordingly, so that the ball will come directly to one of the infielders or the pitcher. The coaches on the sidelines are the ones of the offensive side who should try to fathom what the defensive side is attempting to do in the way of trapping the runner. In short, it is often a good plan for the defense to give the offense just the opening they are looking for and figure that the offense will accept it. Then concentrate everything on that play and "nail" the offense in the act before the play has been completed.

In baseball, as in many other forms of athletics, the faculty of memory is constantly needed. To begin with, the rules of baseball are so complicated that they require the most intricate study and are then not entirely mastered, for situations arise almost every season that require new interpretation in some phase. One cannot be too familiar with the rules of any sport and especially of baseball. Often a game hinges on the interpretation of some rule. This means that the teacher or director must be so familiar with the rules that he may be considered the source "from whom all blessings flow". There is disciplinary value in making boys live up to the spirit of the rules, and for this reason again the director must be familiar with them. The rules of baseball are of just as much importance in the playing of the game as those of grammar are to a study of the English language. Unless one knows all the rules thoroughly, there will come a time when grave mistakes will be made.

Every team, in order to acquire team work, the closest co-operation



between the players, must have a set of signals by which its members let each other know what is to be attempted. One would ordinarily think that with only two or three or possibly a half-dozen signals a team would never make mistakes in giving them or interpreting them, but let me assure you that such is not the case, and that the power of memory is very fundamental in carrying out this bit of detail. Many a boy has found that he has forgotten to let the base-runner know what was to be attempted, that is what he was expecting to do, and many a base-runner has forgotten to look to the batter when a crucial moment was at hand. "I didn't think to look" or "I couldn't see him give the signal" are poor excuses to the rest of the team when victory is turned into defeat by a piece of pure "bone-headedness".

Often you will see some boy get caught off a base by the "hidden-ball" trick when he didn't know who had the ball or when he thought it was in the pitcher's hands. And haven't you seen a boy many times race around from first base to third on an outfield fly and then suddenly remember that there was only one out instead of two? Dozens of times during a season boys on a team will race around the diamond on a long hit and forget to touch some base, and then later be called out for their poor memory. Again, several times during the season, the infield fly play comes up bringing out faulty memory. And always there is some boy on third base on an outfield fly and one out, who gets half way home before the fly is caught and suddenly remembers that he should have held his base and should have come in with the catch. But it is too late then; the fly is caught and he must hurry to get back to third or there will be a double play where

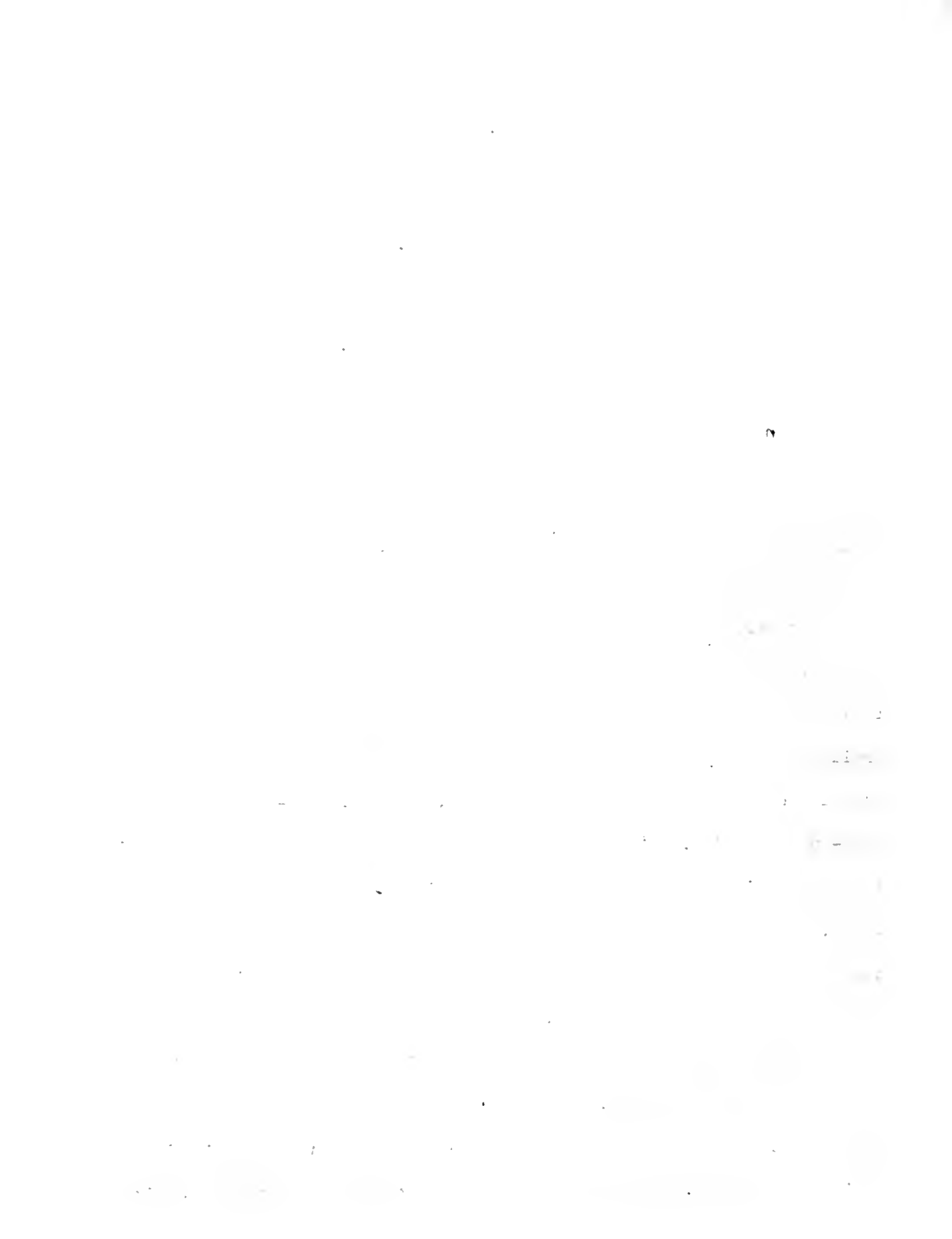
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there should have been an earned run.

On Monday, after the talk about the game played on the previous Saturday, all the boys resolve that they will remember what the coach has said about what they should do under certain circumstances, and are certain that they cannot forget on account of the fact that they worked on this particular play in the field several times. But there is the same story for somebody else at the following Monday afternoon talk. The boy who gets ahead fast in athletics or the game of life is the one who only has to be told once about a thing.

#### MORAL VALUES TO BE GAINED IN THE PLAYING OF BASEBALL.

The foregoing illustrations have been sufficient, I believe, to show that there are great possibilities for training the mind to rapid and accurate thinking in baseball, but what of the moral side? Are there possibilities of inculcating principles through this game which will be of value in training for citizenship? Can lessons be taught that will bring home clearly to the youth the ideas of honesty, courage, self-restraint and self-subordination, determination and perseverance that will be of lasting benefit to him? This part of the program is strictly up to the teacher, the coach, and he should be placed on the same basis as any other teacher. There should be no toleration of the itinerant coach, the one who is here for a season and gone in a few months. Why? Because of the great responsibility which rests on him in the matter of inculcating the correct ideas into boys on the athletic field. "No other educational official comes in such close and intimate contact with the boy during the most impressionable period of his life. No other teacher has his opportunity to know the boy





as he actually is - for the real self is exhibited in the abandon of the game. Impulses of generosity or meanness, honesty or trickery, the ability to stand punishment or the tendency to quit under fire, spring out and control action in ways that are almost startling in their revelation of character".\* " In the excitement of the contest boys act as they really are and not as they assume to be. The athletic field is the great common ground where every man proves his merit or worthlessness. It is the final analysis of character and he succeeds or fails because of what he really is".\* "It is in this field of the utmost practical importance that the coach works. The man with low standards has the opportunity to teach how to evade rules, how to play dirty, etc. for the purpose of winning the game and getting the reputation of being a successful coach".\*

In general then we must look to the leader to guide matters in such a way as to bring out the most potent character-building qualities. To begin with, the coach has the power in his own hands and can use his authority in directing the team so that all the boys will look to him before attempting any play on the field. From one point of view possibly this is a good thing, for it gives the boys the idea of discipline and enables the leader, who has had the broader experience, to wholly direct the play and give timely advice where the ideas of the player, if carried out, might result in failure.

However let us stop to consider the consequences of such action. It has disciplinary value to be sure. It gets the boys into the habit of looking to their superiors for orders before attempting work, but it takes away all the power of initiative of the individual. The player will no doubt continue to perform his mechanical duties in the customary manner, \*The Educational Value of Athletics in Schools and Colleges.



but in the game of baseball so much depends upon momentary solving of situations that the player has not time to look to the bench for orders. The boy, being actually engaged in the play, has innumerable opportunities to attempt things on the spur of the moment which could not be transmitted from the bench fast enough to be of any value, and hence the significance of getting the players to rely on their own brain power. For example, with a man on first base, nobody out and the score close, the ordinary play is to wait for a sacrifice. But suppose the pitcher, catcher or base-man makes a slip and gives the runner an opening to steal. The boy, under strict orders from the bench, will be afraid to take advantage of the opening, while the same boy, if given free reign and feeling that he is responsible for his actions, will be wide awake and on his toes all the time and be ready to take advantage of every slip. The result will be a clean steal, bringing the base-runner within scoring distance and putting the defensive team in the "hole". I have always found that a player taught to rely on his own wits will invariably grasp an opportunity where another will fail. One can readily determine by a glance on the field which team is relying wholly on the coach and which is taught to use its initiative.

Let me cite another example, this time of players on the defensive. The bases are full with only one out - a very dangerous situation with a close score. The catcher sees that the runner on second is playing too far off his base, signals for a pitch-out and throws to second catching the runner flat-footed. A rather dangerous play, I will admit, but worth trying if the defensive team is taught to rely on its own resources. The catcher is looking for just such opportunities, has tried them before and does not feel hampered by waiting for orders from the coach.



With this whole matter of initiative goes the matter of judgment. The value of initiative is practically worthless if judgment has not been developed. The coach must begin early with the developing of these qualities. He must give the boys his experience as to what types of plays to try in certain situations, must have the boys work in practice on the developing of these plays and must generally impress the boys with the fact that they are playing the game and must not depend upon him.

It is not my intention in the foregoing discussion of initiative and judgment, to point out that the coach should give no advice whatsoever during the progress of the game, that is a practice game. Advice can well be given of such a nature as to make the player feel that ultimately he must do his own thinking. "Use your head", is good advice to a player going up to the bat at most any stage of the game. The player immediately thinks, "What have I been taught to do under similar circumstances". "Alright, now I'll try that, and then if it fails, I'll see what else can be done to help things along." His first attempt fails, and then on his own initiative he tries something else and completely outguesses his opponents. Signals from the bench would be too complicated to transmit everything that could come up, but the best signals are those that the boy sees on the field before him - a defensive team expecting one thing and an opportunity of making another play successfully.

The game of baseball is of such a nature that besides individual initiative and judgment there must be a spirit of self-subordination, a spirit of co-operation among members of the team, in short, a team spirit must prevail, if the team is to work as a unit and accomplish results. When the time comes for a sacrifice play, the player at bat must think of his

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team-mate on first or third base and not of himself. His own particular interests should be given no consideration at such times. He lays down his life on the bases for the sake of his fellows, his team, his school. So too with the player at bat and men on bases at any stage of the game. The batter must always keep in mind how best he can advance his team-mate and score a run, rather than how he may be able to get on base himself. The selfish spirit of "every man for himself" has always been the undoing of team work.

In defense, the working to-gether of the team is a matter of prime importance. Every player must know his duty and what is expected of him in every play, and then, knowing it, carry out his part of the plan regardless of what other players do. Many teams with good individual players have failed because there was too much of the spirit of "every man for himself". Each player was trying for the glory and as a consequence the team failed.

The coach or leader, in this regard, has a wonderful opportunity offered him to prepare boys for life, for citizenship. Citizenship and community life imply the closest co-operation between individuals, and the younger this close co-operation is started, the better for all concerned. In baseball as in no other game, the individual prowess will always be brought to the front if great care is not taken. At the outset then, let the coach beware, for individualism once started will be hard to put in the background. The star player is usually the offender and once he sees why he is ruining the team's chances, then the others will fall in line. Star players are often the undoing of team work and it will be no easy task to quell this spirit of displaying individual prowess. But quell it at the risk





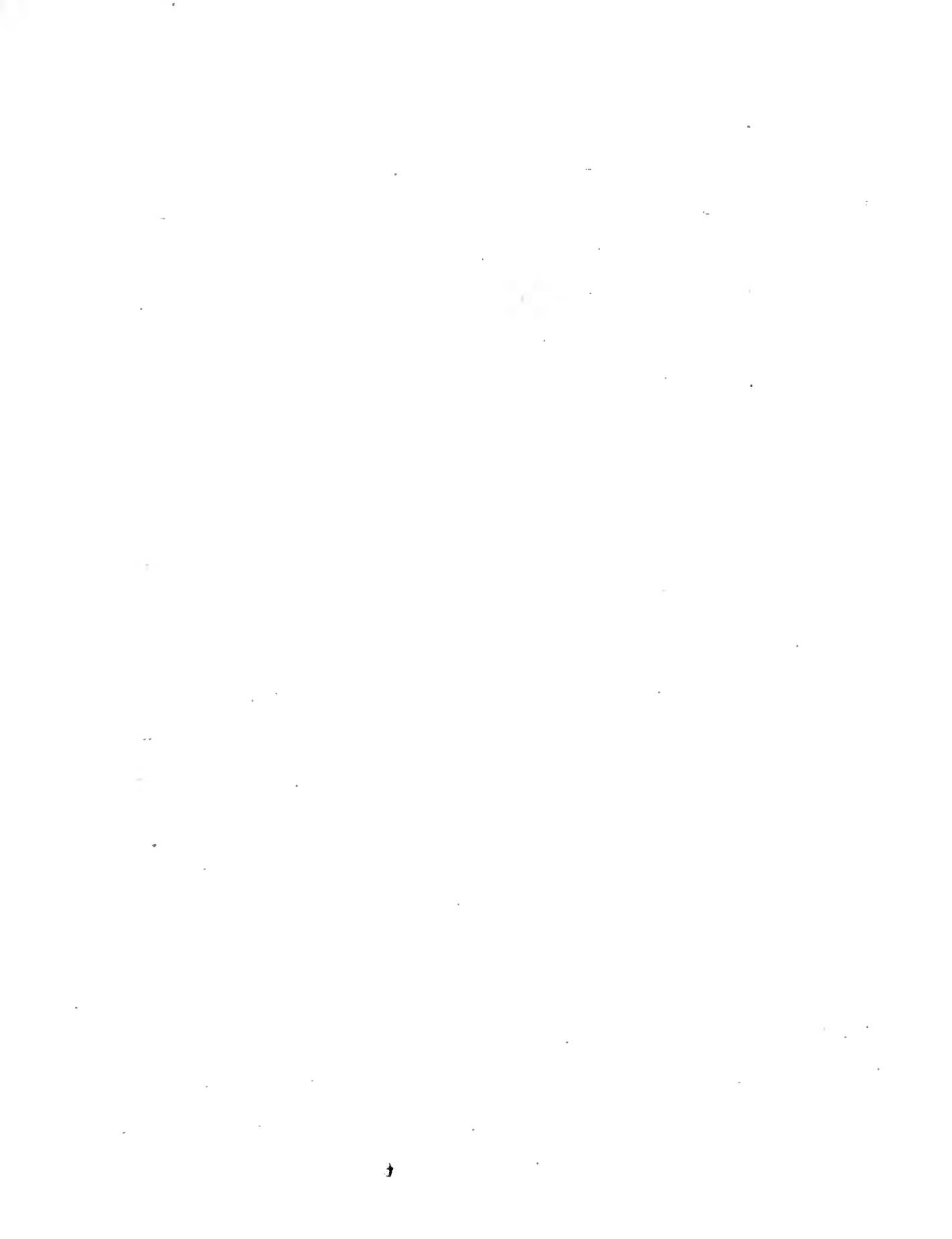
of losing the star, for there are eight other players on the team to prepare for life.

When the team has actually been imbued with the team spirit, there creeps in another very important element, namely, the spirit of sympathetic comradeship and mutual helpfulness. Selfishness is entirely eliminated. The boys are working to-gether for a common cause and anything that can be done to help the other fellow and strengthen his position will help the team. It is easy to make the boys see this and not hard to get everyone into the habit of encouraging the other fellow. When one member of the team seems to have a bad day and is apparently playing poorly, do the other members of the team chide him for his poor playing? No, everyone encourages him with a cheering word, a word of helpfulness. How many times have you heard these words of encouragement on the diamond? "Never mind that boy, we'll get 'em next time", or "that-a-boy, keep right after 'em", or "work hard, Frank boy, let's go after 'em". Very often it happens that one member of the team has had a slump in fielding or batting and wants to stay after practice for a little individual work. He hardly has to ask any one to stay with him to bat grounders or flies to him or throw them over the plate while he hits. Each boy is ready and willing to do anything in his power for the benefit of any member of the group, if that member shows that he wants and needs help. But let there be a spirit of selfishness shown by anyone and he soon finds out that there is no place on the team for him unless he quits that sort of thing. Any team game is an excellent place to take the selfish spirit out of a boy and teach him that unless he subordinates his own desires to the interests of the team, there is no room for him. That one principle, if carried into life, will do much toward making for good citizenship.



Then too, there grows up a sort of a fraternal spirit among members of a team that has played to-gether all season. Each boy finds out the good points of the others by constant association, and the spirit of good-fellowship and comradeship is awakened. Many a strong friendship grows out of such associations; viewpoints are broadened and experiences widened. Especially is this spirit of comradeship valuable to the boy who does not go to college. Here in the secondary school is the one place for him to meet boys on common ground and get associations that will be valuable to him in after-life.

Let us now look at some of the other qualities that tend to the developing of character, to the developing of red-blooded manhood. It requires courage and determination to play the game of baseball as it should be played. Witness a batter standing in his position with fast balls wizzing over the plate. The natural tendency is to draw away, or, if the ball be a curved ball coming straight at the batter and then curving over the plate, the action to draw away is almost involuntary. But let the batter gain a little confidence in himself by standing there and by hitting one of the fast balls and he has the courage to face any pitcher and stand up close. Often though we find a boy who has been hit in the head with a thrown ball and who shrinks from the fast moving object. It is then that we have to use all our ingenuity in devising schemes to help encourage him in the matter. Again, in the matter of sliding, the ordinary boy who has not been taught to slide properly is afraid to leave his feet, drop his weight on hip hip and slide to a base hooking it with one foot. But let him practice on the correct method and acquire the knack of "hitting the dirt" in a sliding pit and he has the courage to slide going at top speed. But the more he attempts to



save himself the more chance there will be of doing the thing wrong and of hurting himself. It requires courage also to put the ball on a runner sliding to a base, coming in with both spikes facing the baseman. Here again the baseman must face the situation and tackle the thing in a masterful way. Half-heartedness in these things will surely mean disaster.

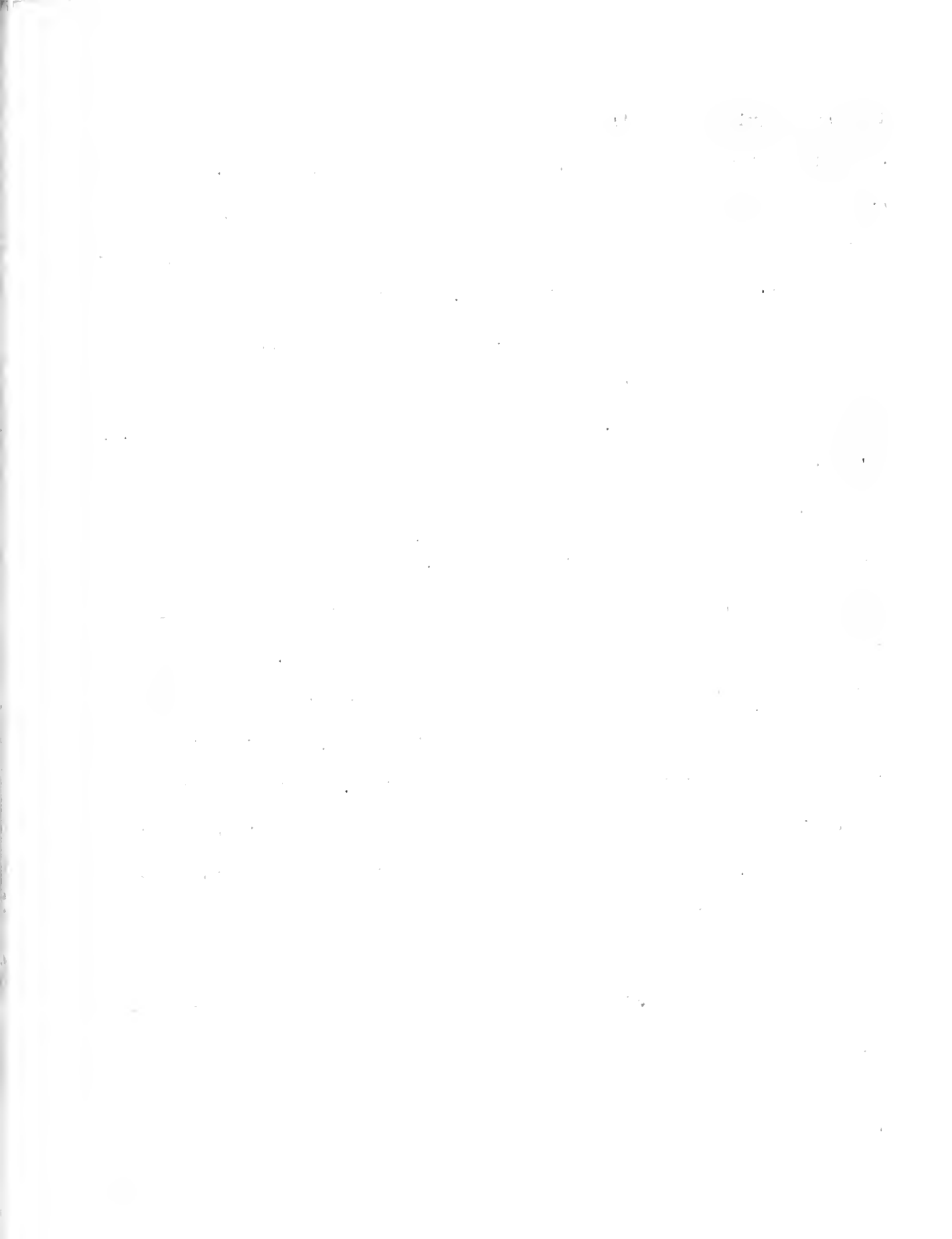
What more striking example of determination and stick-to-it-iveness would one care to see than a pitcher gaining control. The boy who masters control has gone through all the stages of learning determination. Hour after hour he throws to the catcher, holding his glove in a certain spot, and he must persevere under all manner of exasperating conditions if he is to finally succeed. This determination and perseverance may be seen in the whole team. The batter in his will to hit the ball, the catcher in his steadfastness to get the correct throw to second base, the infielders and outfielders in the perfection of their fielding and throwing, etc. One sees an infielder work for hours at a stretch trying to master the bounce of the grounders as they come from the bat, or an outfielder with his perseverance in scooping up "shoe-string" balls or running for fly-balls over his head. In every phase of the game determination and perseverance must be the watchwords if the boy is going to succeed. The coach must exercise his judgment and care in working with the boys, here a word of encouragement and there a few words of driving the boys on, but withall, a watchful eye to see that they do not overdo. In all athletics it is always better that the players be underdone than overdone.

Still other values may be brought forth in the playing of baseball. It would seem at first thought, on account of the rapid-fire brain work



the game requires, that there would be no room or place for the faculties of deliberation and reflection. Such is not the case, however. The pitcher on a baseball team has a great opportunity to exercise his power of deliberation during the exciting moments of the contest. There are runners on the bases and a good hitter is at bat. The pitcher and catcher use great care in throwing to the batter. Both study their "victim" and debate in their own minds and by signs to each other as to what type of ball he can and cannot hit. If he swings at an out-curve, the pitcher will deliberate on the fact as to whether or not that was his weakness or strength; if he passes up a close ball, there will be a question as to whether or not he intends to try for a walk. In every situation where a run may be involved there is always a chance for deliberation and reflection as to what is best to do under the circumstances. The catcher reflects a moment and calls to mind that the batter was weak on a certain type of ball early in the game, or in a previous game, and immediately signals for a repetition of that same type of pitch. A swift ball is knocked to the pitcher or an infielder. There are no runners on the bases and it is an easy out. The fielder does not throw immediately, but deliberates a moment, collects himself after a hard stop and prepares to make a good throw to catch the runner.

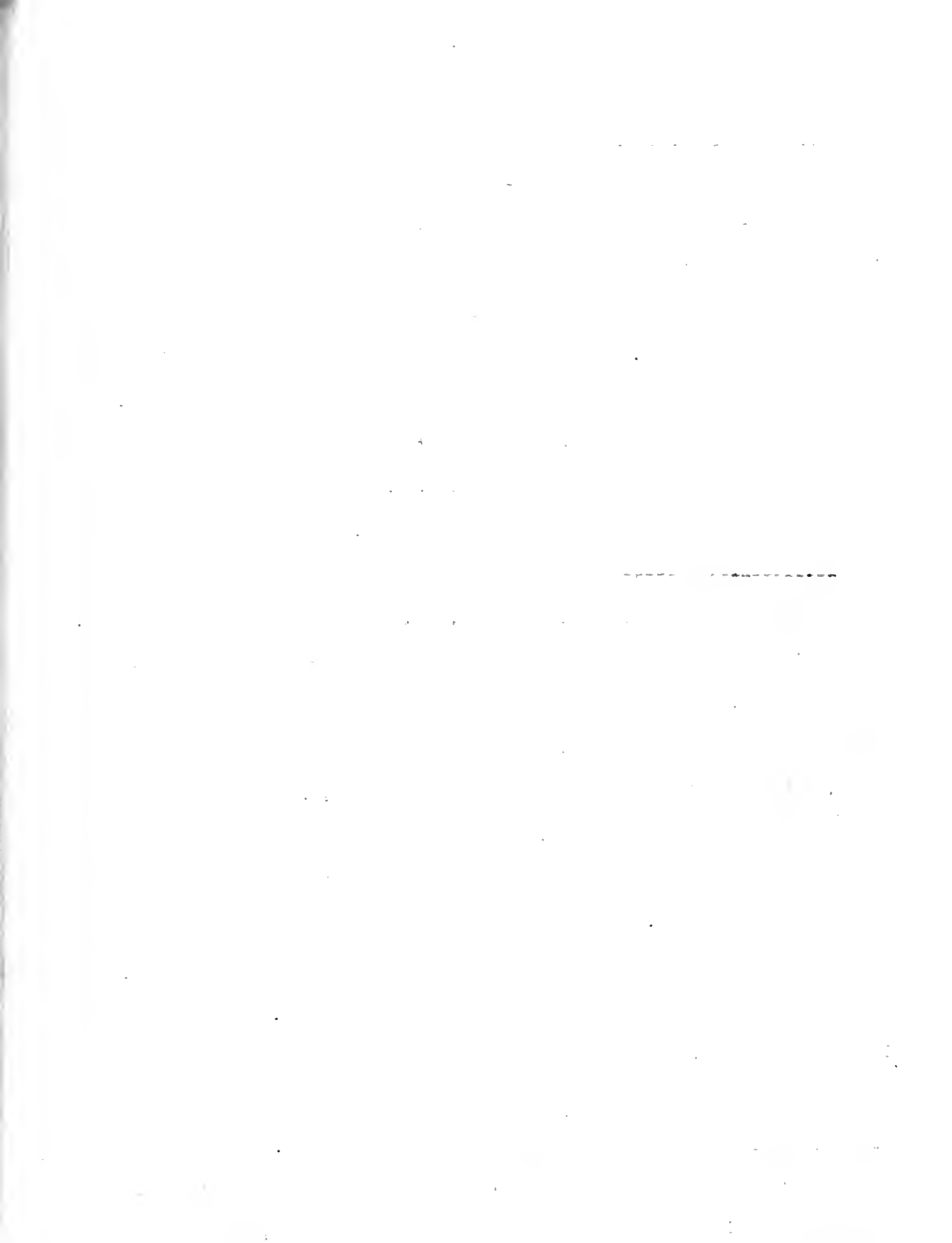
After the game there is always a "post-mortem" held, each player reflecting as to what he should have done that he did not do, or what he would do next time under similar conditions. The coach calls the team together on the day after the game and each wrong play is brought up and discussed fully. The whole team is picked to pieces and there is a general





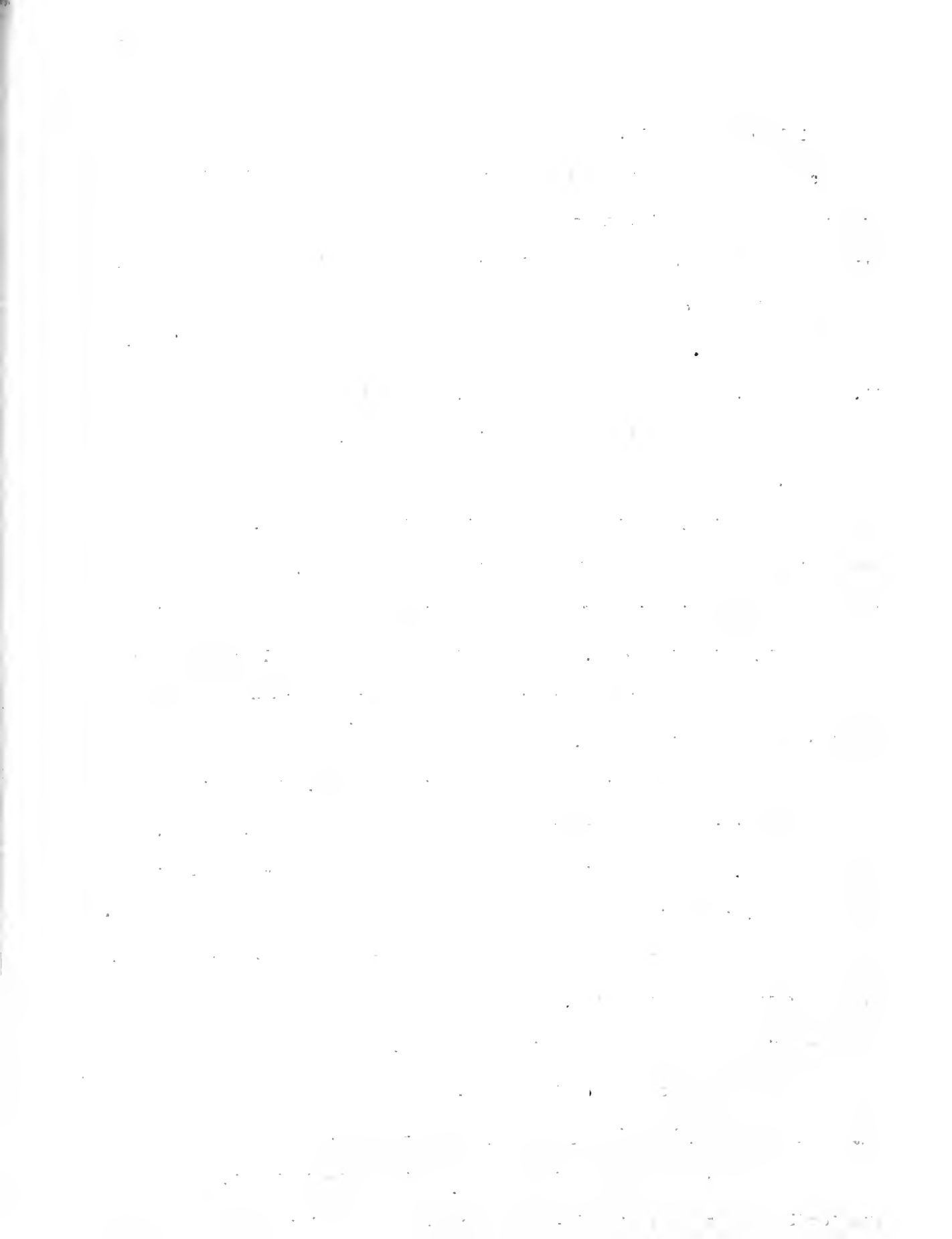
reflection going on all through the discussion. Innumerable examples might be cited of this sort of thing, but these few illustrations should serve to show what the possibilities are for moral training.

In an athletic contest of any kind and particularly in a baseball game there should always be a captain, a field general, who is in charge of the general matters connected with the running of the team. Of course it may be seen at a glance that only one out of the nine on a baseball team can have this position, but each of those nine can show their coolness and collectedness at critical moments so that the next year may put them in line for such a position. There is an excellent training here for an individual if he cares to show that he is responsible and a good, steady player. As a rule it is the leader who decides what to do at the psychological moment in the matter of putting in a pinch hitter or a new pitcher, etc. but the field captain should be so trained that he will feel it a duty to confer with the coach on all matters of this sort. Everything may apparently be going all right, but the captain, who is actually engaged in the play, may notice the weakening of some player, mention this fact to the coach and both may decide on a change. The field captain has the advantageous position for setting in motion a special play designed to throw the opposition off their guard, or for doing the right thing at the right time. There is fine training along this line for the boy who will accept responsibility.



is to solve on the particular day of play, the batter will still be obsessed by the difficulty of his task until he gets this unfortunate idea out of his head. Players who have these fears about pitchers must overrule them and banish them, and stand up to the plate with the determination to hit. A pitcher and a catcher can tell very easily when the batter lacks confidence and that very thing puts more confidence in them. In a game things may be going along beautifully for a pitcher. Suddenly there is a change. Some batter makes a good hit, and then as if by magic, the whole offensive team makes safe hits. The pitcher loses confidence and the opposition gains confidence and quite probably there has been no change in the pitcher's delivery. The mental attitude of the batters has been changed. It is a psychological condition. As long as the batters persist in this mental attitude, they are liable to hit any pitcher. This phenomenon is what is known as a rally. A good hit by one batter will raise the hope of the one following him and there is a sudden onslaught. Often this condition of mind may be produced on the home ground by the "rooting" section, that is, by the yelling of the crowd. The same "rooting" which encourages one side may discourage the other.

Everyone has seen a game won by the home team in the "lucky seventh inning". The crowd stands up, calls for a hit, the pitcher gets nervous at the yelling and throws the wrong sort of ball. A hit results. The pitcher gets more nervous and in a few moments there is a rally and the home team has made several runs. Especially is this sort of thing true of a young and inexperienced pitcher, or one who is pitching for the first time in a community. The minute his mind is taken off the game, he does something ~~wrong~~. Again, with an "old-timer", all the yelling in the



ning often results disastrously on account of the mental state that is thereby produced. A base-on-balls given by a pitcher may worry a whole team to such an extent that it will make errors. There is a tendency on the part of the rest of the team to become nervous when one member makes an error. Several errors in a row coupled with a base-on-balls will put a team so far "up in the air" that it has no chance of winning during the rest of the game.

Opposed to this, an example may be cited of a player making a good stop at the first of the game and giving him confidence not only for the rest of that game but for the rest of the season. " Often a player when he fumbles a ball is more liable to make a bad throw, especially if the fumble is inexcusable. The cause of this may be that, experiencing disappointment or shame, he feels desperate and throws accordingly. " Also, "the failure of some fielders to hit can worry them so much that their fielding will be bad". \*

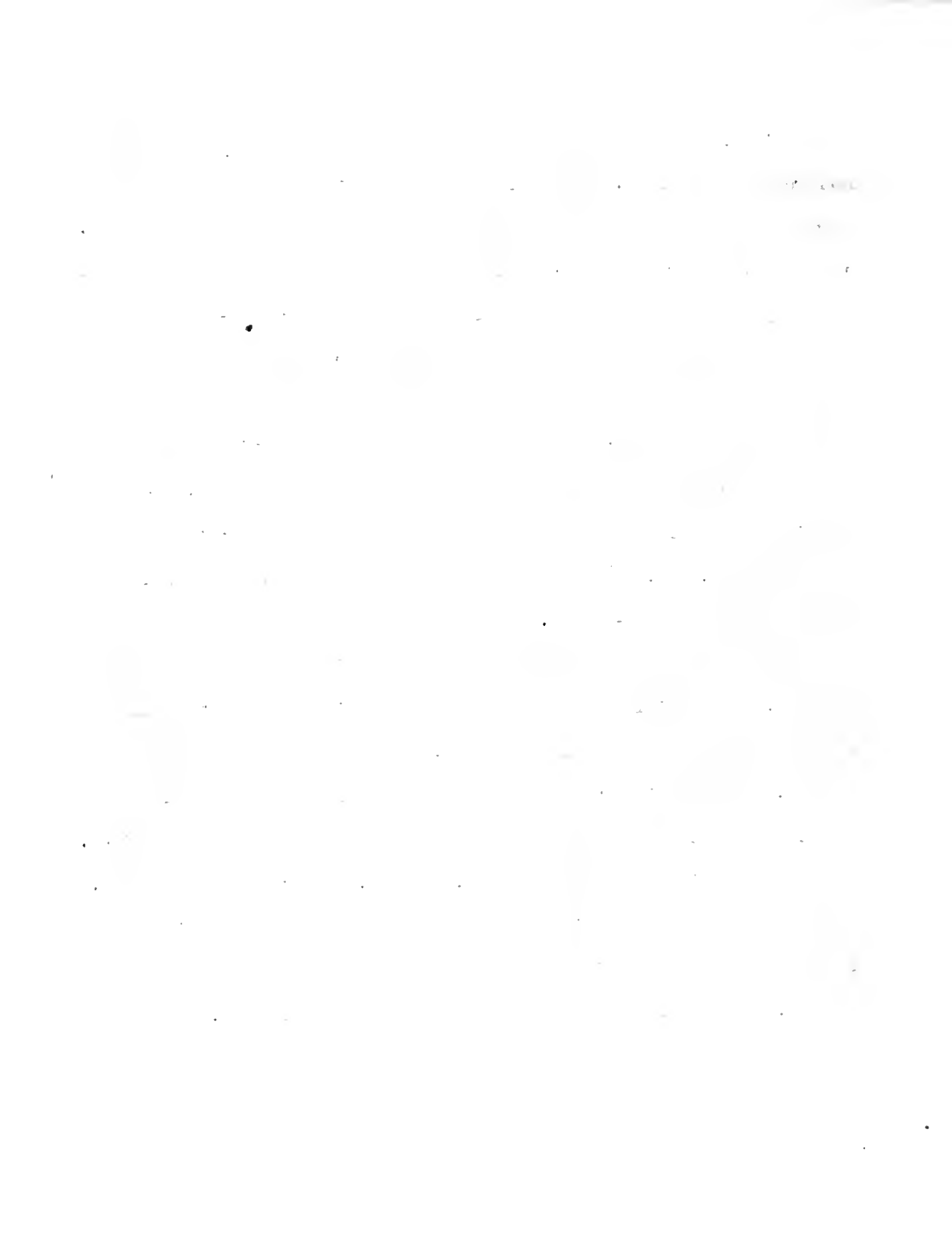
Especially is the maxim, "Do the unexpected", true with the base-runner. He can do much toward worrying the opposition into doing something disastrous in an attempt to catch him. On first, for example, by his actions he can make the pitcher feel that he is going to steal on every pitched ball. The pitcher will either throw many times to first in an attempt to catch him off the base or else pitch a waste ball to the plate in the hope that the catcher will have a better chance to get the runner going to second. The base-runner in the mean time has held his base, and the throw is either good and all in vain or it goes wild and the runner has an opportunity of making second in safety. Then there is another way of taking the opposition unaware. The runner may seem very unconcerned but yet keep



himself in readiness to steal and go down to the next base when nobody believes he will do it. But the fielders may be tricky with the runner. They may give him a big lead and apparently manifest no concern over him. Suddenly at a signal they catch him unaware and possibly retire the side. The delayed steal and the double steal are methods for base-runners to confuse the mental action of the opposition and use the psychological moment to good advantage. The base-runner who makes a constant and consistent study of the movements of a pitcher in throwing will usually be the one to succeed and make himself dangerous to the defensive. Unconsciously the pitcher is addicted to certain little traits that give away his throw, and, if a study of these traits is made, good results often come to the base-runner.

We see then that the psychological element is an important one in baseball. The condition of mind has much to do with the part that is actually witnessed on the playing field, the mechanical or physical element. Concentration and a study of what others are thinking and planning to do cannot be neglected if ultimate success is to be obtained.

The mechanical phase of baseball, however, is a very important one. Coaching necessitates knowing how players should perform mechanically and coaches must teach players properly if they are to achieve the best results. Therefore, it behooves us to study this phase fully.





## Part II.

### A STUDY OF THE VARIOUS ASPECTS OF BASEBALL.

It will be my object in this portion of the thesis to deal with the aspects of baseball most commonly met with by the high school coach, and arrange them in such a manner that this part may be used as a manual or handbook for high school coaches in teaching the game.

#### THROWING.

Throwing, while possibly not the most important part of baseball, is the first requisite of a player and, in order that proper co-ordinations may be obtained, many years of practice are necessary. The free, easy throw that characterizes a good baseball player is, as a usual thing, learned in early childhood and develops as the boy grows older. It does not require great strength to throw a baseball with speed and accuracy, but it does require perfect adjustment of the weight of the body and complete co-ordination of the arm and shoulder muscles. The player who gets his weight into the throw perfectly is the one whose arm never goes back on him, except in the case where the throwing arm is abused or overworked. To prove that this is true it is only necessary to cite the example of numerous players who have been in the game for fifteen to twenty years and still have good use of their throwing arms.

The principal thrower in the game is of course the pitcher. I say principal thrower because he has the hardest and most accurate throwing to do. The pitcher especially must learn to get his body weight into the throw in order that he may get years of service from his throwing arm. The muscles of the back must be brought into play as well as those of the arm.



Throwing with the arm alone is one of the most common faults of boys at the high school age. The coach should bend every effort to have the weight follow through with the pitch. The pitcher will know by the way it feels whether or not he is getting his weight into the throw.

Another thing which a pitcher should work for is being able to throw from various angles. He should be able to throw overhand, starting with the weight on the toe, side-arm and underhand. When he has mastered throwing from these positions, control is the next thing in order. First, have your pitchers get control of an easy pitched ball and then work into the throws with more speed. Control is much more important, I believe, than a large assortment of curves, although these are valuable. Don't allow your pitchers to throw too much especially at the beginning of the season. Start them out at throwing very easily, working for control; then have them try their curves, easy at first, and gradually work into the hard-pitched ball.

The out-curve for the right-handed thrower is usually delivered from a somewhat side-arm position by a twist or snap of the wrist in the direction of the curve. The ball is held between the first and second fingers and the thumb. In fact, for all curves, hold the ball in this manner. For an in-curve the throw may be either overhand, side-arm or underhand. In the first case the ball is given a twist and passes from the hand off the side of the second finger next the third finger. In the second case, the side-arm throw, the ball passes off the ends of the first and second fingers. For the underhand in-curve the fingers are brought upward with a snap of the wrist to the thumb side. An underhand in-drop may also be obtained with practice by throwing underhand and yet somewhat side-arm and allowing the



ball to pass off the end of the second finger and at the same time snapping the wrist upward. The out-drop curve is held with the first two fingers in front of the ball as it moves toward the plate, is thrown overhand and with a snap of the wrist downward. I do not advise the use of the spit ball for high school players and will consequently say nothing about it here. For left-handed pitchers the curves described are thrown the same way but their direction is necessarily reversed.

The full use of the pitcher's plate is another thing which the high school coach should teach his pitchers. By this I mean that the angle at which the ball approaches the batter can be changed by delivering the ball from different parts of the pitcher's plate. An ordinary "cross-fire" can be delivered by a right hander by throwing underhand from the extreme right side of the plate facing the batter, and an entirely different ball may be delivered by standing at the extreme left and stepping to the left on the overhand delivery, bringing the hand diagonally across the front of the body on the throw. Various other combinations should also be used as the throw from one position continually will soon accustom the batter to that particular delivery and help to make the ball easier to hit.

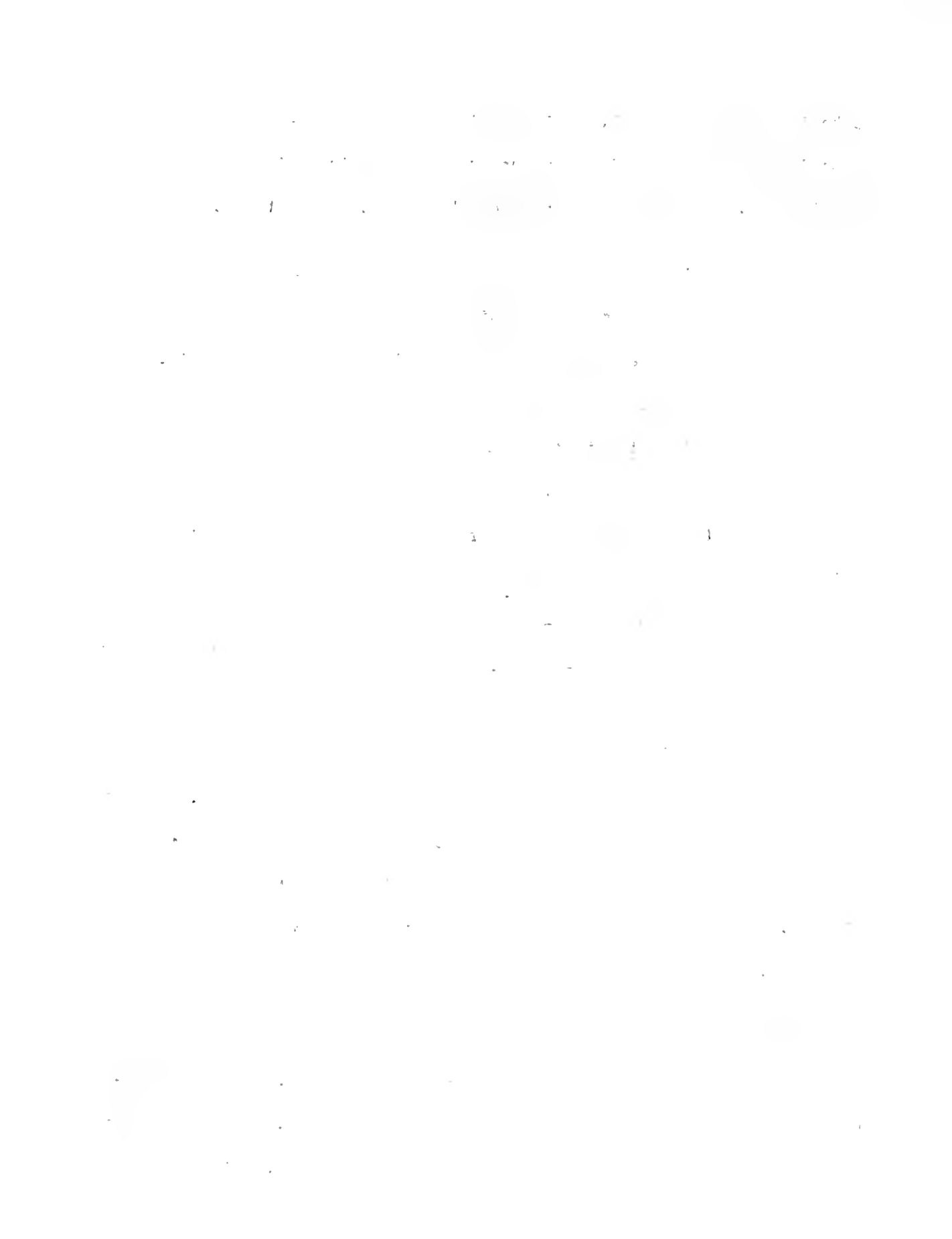
In throwing to bases the pitcher must get accustomed to a quick swing, throwing at the same time, and must learn accuracy in this phase also, as the accuracy of the throw is what usually determines whether or not the base-runner is out. The right-handed pitcher should look over the left shoulder to first base and be very careful about his foot-movement. Otherwise, the throw will be given away immediately with no chance of



catching the runner. The easiest swing for the right-handed throw to second base is to the right because the thrower is facing the play continually. The reverse is true for the left-handed pitcher.

The catcher's throw is somewhat different from that of any other member of the team. It must be a quick snap throw in order to put a runner out and yet the catcher should get his full weight into it. The weight is gotten into the throw by balancing on the right foot, raising the left foot waist high in front and throwing overhand at the same time that the left foot is lowered. One step with the left foot is all that is necessary, though many catchers, and good ones too, throw with a slight hop on the hind foot (right). Quickness in getting the throw away is absolutely essential - every fifth of a second means a gain of about two yards by the base-runner. The catcher who constantly gets men out stealing second is the one who has speed in getting away his throw. Accuracy of throw is of course essential, but no matter how accurate the throw slowness in getting the ball away will mean stolen bases. The quick, snap throw besides preventing stolen bases is invaluable to a catcher in catching runners off the bases after receiving the ball from the pitcher. The catcher with this type of throw always keeps runners "hugging" the bases.

Infielders must learn to become proficient in throwing from any position whether it be underhand, side-arm or overhand. They must learn to pick up the ball and get it away almost simultaneously. Often they will have to throw after picking up the ball on the dead run, going in any





direction, and it requires careful calculation to know just how to do this so that the throw will be accurate. The boy who has to stop or straighten up to throw will many times lose a chance to retire a runner. The infielder must get accustomed to awkward and unnatural positions of throwing or he will soon lose his value to the team.

Some coaches believe that a boy with a weak arm can be stationed very safely at second base on account of the short throw to first. Personally, I believe this to be a false idea and that many runners going from second to third or from third to home will be lost simply on account of that poor throwing arm. Again, the second baseman must relay long hits to right-center field which requires an excellent arm. When the second baseman covers first on a sacrifice play, he must throw to third if necessary; or, if he takes the cut-off throw from the catcher on a double steal, he must be able to throw to third or home to catch the runner. All of these plays require a good throwing-arm. It is essential that the first baseman, as well as the other infielders, get the ball away quickly, especially on double plays in which he is involved. On an infield hit to the first baseman when the pitcher covers the base, the first baseman's toss should be ahead of the bag so that the pitcher may collect himself before touching the base. Otherwise, he is liable to overrun the base or miss it entirely.

The shortstop, I believe, has the hardest throws to make for he must go either right or left or come in at full speed. The one difficult throw of the third baseman is that made to first or second after coming in at top speed for a bunt. He must throw underhand in order to catch the



runner. There is no chance to stop, no chance to raise up to get into position, or no chance to get set for the throw, or the man is lost.

On all attempted double plays the throw to the first man should be shoulder high so that he in turn will be in a better position to throw. In double plays where the ground ball is fairly close to second base, the second baseman or shortstop should toss to the base so that the throw will not be too quick to handle. Care must be taken not to attempt too long a toss as this slows up a play and offers a chance to lose both runners.

The outfielders' throws are of only one type, namely, overhand, because the throws of this type are straighter, more true, and take a better bound. An outfielder must practice continually on getting fly balls away with speed and accuracy. Every outfielder must possess a strong throwing-arm and be a good judge of throwing distances. In order to make a good throw he must be set for it after the catch or be running toward the infield when the catch is made. Otherwise it is next to impossible to make a quick throw that will carry far enough to go from the outfield to home plate with only one bound. In throwing to bases after safe hits to the outfield, the bounding throw is the best to use unless the bound is liable to fall in the path of the runner, in which case a direct throw should be made. Bounding throws can be made to travel faster and more accurately than can long direct throws, for the higher a throw goes from the ground, the less is the chance of accurate control. In any throw, however, always remember that the condition of the ground has much to do with the accuracy of the bound. On a rough field, therefore,



throw direct and not with a bound.

### BATTING.

The most important part of baseball to both player and spectator is batting, for it is the aggressive part, the chief center of interest. No contest of any kind can be won without aggression, and therefore the team which has not aggressiveness, batting strength, does not win. Consequently, a team should have more batting practice than anything else. Let me here inject a word of advice to the coach. When your boys have apparently nothing to do, give them batting practice. Let it be understood that this is the program all through the season. Keep them at it whenever there is a lull. A strong hitting combination will invariably win ball games even though they are slightly weak in fielding, providing of course that good judgment be combined with the hitting.

In general, batting is a battle of wits between the pitcher and the batter and requires self-confidence, a good eye and plenty of nerve. The boy who does not stand at the plate with all the confidence in the world that he is going to hit, will never succeed as a batter.

As to the position to assume while standing at the plate, some authorities tell us that batters should crowd the plate and that those who do are usually good hitters.\* "They have the courage to risk injury, the nerve to allow the ball to hit them, and the advantage in getting decisions because, knowing they crowd the plate habitually, umpires decide that they tried to escape being hit."\* Besides, pitchers will pitch outside to them steadily through anxiety to avoid hitting them, if they know that a man will take a ball in the ribs in order to reach first base. I should

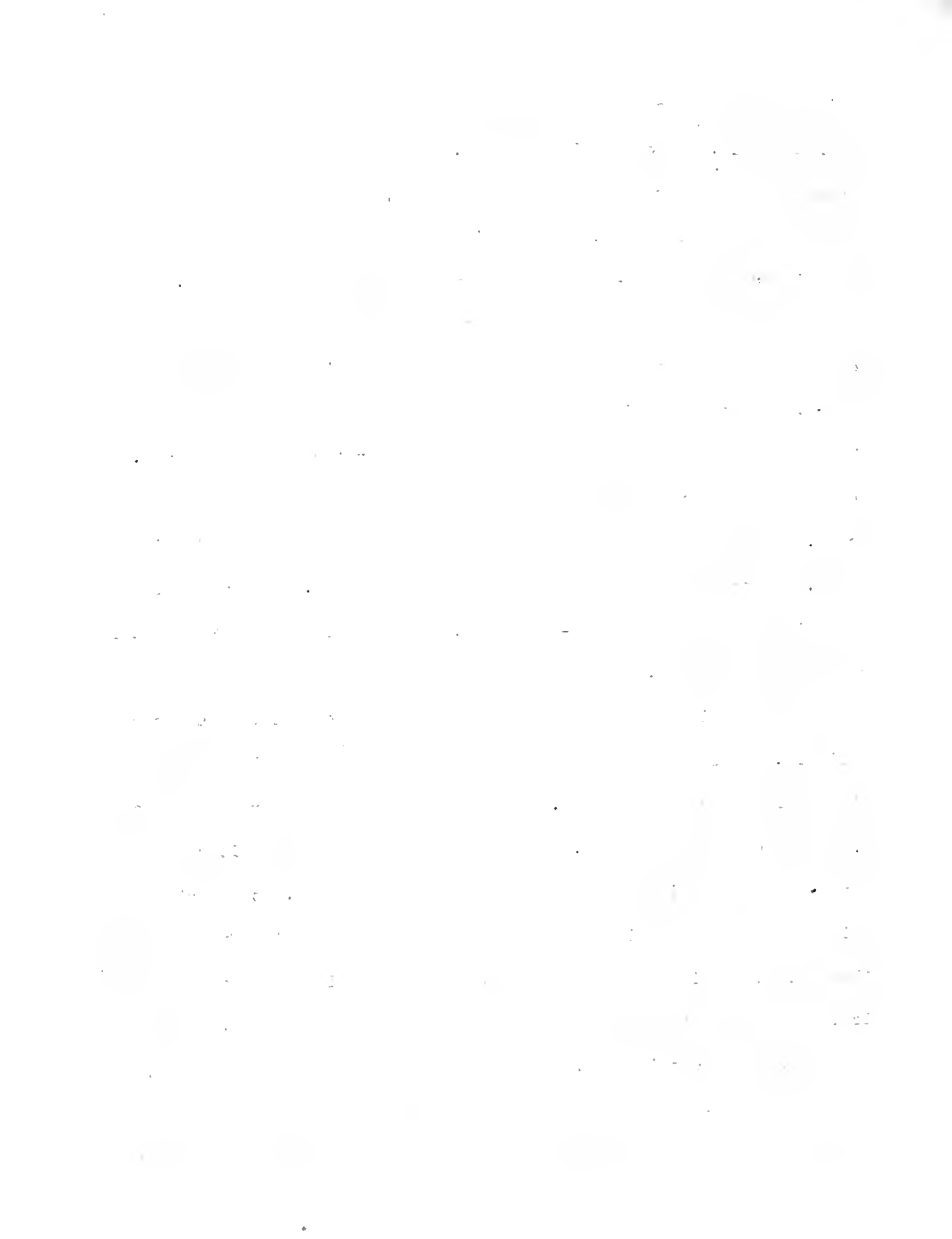
\* Touching Second - Evers and Fullerton.



advise a player to stand up to the plate in the position which seems natural to him. To coaches I would say, "Do not try to change any natural tendency of a batter unless he is not hitting well or unless the natural tendency is totally wrong." You can't expect to have your players bat according to formula - the human element does not permit of it.

The bat of course should always swing parallel to the ground. Do not let the boys chop down or swing up with the bat at all angles to the ground. For boys I believe the free swing is the best to learn and I should advise that the bat be held as it seems natural to the player. Some players naturally choke the bat while other hold it at the end, and so on. The bat for a player to use is the one that feels good in his hands, the one which seems handiest for him to swing. Be sure to pick out bats with good wood in them - the good, live wood is what makes the ball rebound with a "zip".

When standing in position to bat it is best to have the feet spread a little, say 16 inches or even up to 24 inches, and the body turned about half toward the pitcher. The weight should rest more on the rear foot than on the front foot. With the swing the front foot is raised and a very short step is taken DIRECTLY toward the pitcher. As the step and swing are taken the weight is shifted from the rear to the front foot so that when the swing has been completed the weight is such that the player is in a position to start running by a step of the rear foot. At the completion of the swing of the bat it is ready to drop, being out of the way of the body. A great fault with batters is that they take too long a step when swinging and consequently must stagger around at the plate





and waste time getting started to first base. Remember that when nearing first base each additional fifth of a second means six feet to the fast base-runner and on all close plays that is about the distance by which the ball beats him to the base.

Before the players are ready to step to the plate and take their turn at hitting, have them swing the bat and step as described above so that it will become natural to them. Too much emphasis cannot be placed on the proper method of getting the weight into the swing.

A very common thing among young players when batting is doing what is known as "putting the foot in the bucket", that is, pulling the front foot away from the plate when the step is taken. About the only means I know of to break this habit is to have the player stand at the plate with his feet well spread and simply shift the weight from the rear to the front foot without taking the step. By this means he will eventually rid himself of the habit though he may not be able to get as much force into the blow as before. The tendency of course when the front foot is pulled away from the plate is not to swing the bat parallel with the ground but to chop down thus ruining the chance of hitting the ball squarely. Right here let me say that a terrific swing is not necessary. The swing that counts in the end is the well-directed, careful one. Get the idea out of the player's mind that he must swing with all his might in order to make a safe hit. When you can get the boys to meeting the ball squarely your battle is practically won.

Many persons feel that bunting is a very unimportant part of batting and for that reason put little or no emphasis on it. This is not so,



however, and as I will show later, the team that can bunt will score runs and win games where other teams will lose them. There is a science, an art, to bunting successfully and it is not just a matter of putting up the bat and allowing the ball to hit it. Very often good bunts are made this way, but it is more luck than anything else and so often a pop-up fly results from this type of procedure. Then follows a double play making the side at bat look woefully weak and getting the team in the field out of a bad "hole".

In bunting the method of handling the bat and of weight control is entirely different from that of batting. Here the bat must be held loosely in the hands, the hands spread, and the weight shifted backward instead of forward, the rear foot moving and the front foot remaining stationary. The bat is drawn back at the same time that the backward step is taken and the endeavor should be to have the bat as dead as possible when it comes in contact with the ball. I have termed this the "draw-shot" because the ball does not go far and keeps spinning constantly as when a billiard ball is given "English" by a player's cue. The form of bunting which I have just described is known as the sacrifice bunt. The man at bat should make no attempt to get away from the plate until the ball is actually hit. He sacrifices his life on the bases for that of another and figures to be out at first base before he starts. The minute the player gets the idea that he is going to beat out the bunt its accuracy is lost and it probably will go directly into the hands of a player, for when a sacrifice bunt is expected the fielders play close and are watching for just this sort of ball.



Bunting to "beat out the ball" is executed in an entirely different manner from the sacrifice bunt. Here the player, usually a left-hander, because he has the advantage of a step or two on a right-hander, gets away from the plate at the same time that the ball is hit and attempts to place the ball along the first or third base line or push it past the pitcher, just out of his reach and too slow for the shortstop or second baseman to handle and get him at first. The player who uses this type of strategy must be exceedingly fast and must use good judgment as to when to execute the play. He must do the unexpected - otherwise, he is almost sure to be caught.

#### BASE-RUNNING.

Base-running might easily be classed as a part of batting since the batter upon hitting becomes a base-runner. At any rate the two are very closely connected and form the two parts of aggressive play. When men are on bases the scheme of defensive play is broken up to a large extent, and not only do the basemen have to play closer to their bases, but the pitcher must use great care in his delivery to keep runners close to their bases.

To be able to run bases and be classed as a good base-runner, the boy must think and act quickly. The least slip on the part of the defensive team, and he should be off for the next base. Boys should be taught to exercise their own judgment in base-running as much as possible. Waiting for a signal from the bench takes away the initiative, a quality which baseball should develop. Very often the player on the bases can see an opening and advance whereas the orders issued from the coach on the bench come too slowly to allow the player to act upon suggestion. Baseball is a



game in which no one can determine just what will happen on the next pitched ball, and it therefore behooves the base-runner to be constantly on the alert for a chance to advance.

Teach your boys to get a good lead and exercise proper weight control so that the pitcher will not catch them off their balance. The throws from the pitcher to the bases rarely catch a runner when he is not off his balance. This is of primary importance. Watch the pitcher constantly for the slightest movement betraying his intention to throw to bases. This he may do by a move of the feet, arms, shoulders or hips. Make him throw to bases. Nothing disconcerts a young pitcher so much as having to throw to the bases and having to worry about whether or not a runner is going to advance on the next pitched ball. Make the pitcher think by your movement that you are surely going to steal on the next pitched ball. Observe closely and you will notice that an inexperienced pitcher always walks more men with runners on the bases than when there are no runners on bases. This is undoubtedly due to nervousness at having to watch runners so closely.

Young players are constantly getting caught with the old, time-worn "hidden-ball trick". Therefore, watch the ball and be sure you know where it is before you leave the base. It is the business of the player or runner as well as that of the base-line coacher. If you, as runner, do not know, ask.

Coaches should have their players practice on getting away from the plate quickly after hitting the ball. This can only be done by proper swinging of the bat and proper handling of the weight. The more time a batter spends getting away from the plate, the longer the fielder can fumble the ball and still get him at first. After a hit to the outfield,





always take the turn at first base and be ready to start to second if the opportunity offers itself. When circling the bases, hit the inside of the base with the foot that seems handiest. Don't try to touch the base with a certain foot as you will very likely have to change step and slow up.

The base-runner, whether or not he is going to steal, should advance a little toward the next base on every pitched ball. Then in case the ball is hit he will have just that much start and a better chance of advancing safely.

Before taking up types and methods of sliding, let me say a few words about sliding in general. First, see that your boys wear sliding pads of some sort. "Strawberries", so called, are bad things for the base-runner and are very apt to get infected. If your boys cannot afford sliding pads, get them to wear a belt inside their trousers with towels fastened on each side to afford protection. The only way to have your players learn to slide is to construct a pit or pick out a soft spot on the field and practice continually until the slide is mastered. An inexpensive pit can be made by digging up the earth twelve inches deep over a space about ten by twenty feet, and mixing it with equal parts of sand and sawdust to prevent caking. Instruct your players to lay aside all fear of injury as this fear is what causes many sprained and broken ankles. The boy who is afraid to slide will attempt to save himself as much as possible and as a consequence will not get the proper position. I have had no trouble with this method in four years of coaching. A good rule to follow in sliding is to slide so that the base will be between your player and the baseman. If the baseman attempts to block a runner from the base, the only thing to do is to slide



into him or around him, preferably the latter. Very few basemen care to stand up to a pair of spikes coming in at a fast clip, so little blocking is attempted. It is poor baseball any way one looks at it.

Instruct your players to slide on all close plays. If the decision apparently will be close, the runner has much the advantage when sliding. It looks like very bad baseball to have the runner get caught "standing up", and there is always a chance in sliding that the baseman will drop the ball when tagging the runner.

There are several different methods of sliding. The best perhaps is that known as the hook slide. In this slide the runner "takes off" the foot that hooks the base, that is, THE FOOT WHICH HOOKS THE BAG IS THE LAST ONE TO LEAVE THE GROUND. The front foot is kept well out of reach of the baseman as is also the body, so that all the baseman has a chance to touch is the runner's foot. The knee is bent so that the runner will not get his spikes caught in the ground and sprain his ankle. When taking off for the slide, the player should always land on the opposite hip from the side nearest the base. A half-sitting position is maintained throughout the slide; the runner partly supporting himself on his arm or hand on the side away from the base. The other slides are with feet straight into the base and a head-first, diving slide. The latter is rarely used except when the base-runner is caught off his balance in an attempt to get back to his base after a throw from the pitcher, catcher or some infielder having the ball. In such a case a dive for the base with outstretched hand will many times save a player from being put out. This slide is not used more because of the possibility of a runner's head and hands



being cut by a baseman's spikes.

At this point I wish to offer a few suggestions as to what to do and what not to do with runners on the bases.

If a runner is going to steal before two are out, the best time to go is before the batter has two strikes so that he (the batter) may help out by swinging at the ball and confusing the catcher. When the game is close and one run means much to your team, a safe game is the best. With the score several runs in your favor or if your team seems far outdistanced, you can well afford to take plenty of chances on the bases. A good time to steal is when the batter has two strikes and three balls, especially if the batter is a good hitter and the runner is on first base. If on first base with two out and "two and three" on the batter, always go, for, if the batter gets a base-on-balls, the runner will be safe, and if not, no harm will be done. Don't let your player steal home unless there are two out for there is always a chance of a hit, a sacrifice fly, a squeeze play, or an error which will give your team a run. Many times a steal to the plate, if the pitcher takes a long wind-up, will confuse the defending side and start a rally, especially if the pitcher is inclined to be nervous. The steal to the plate requires a good start, a fast man and a good slide in front of the plate. The batter in this case should remain in his box and the runner should slide in front of him.

Because a catcher has thrown perfectly several times during a game is no sign that he will continue to do so throughout the entire game. There are times when you should give the order to your players to steal recklessly. You must realize these. Many games are won by just this sort of thing. Get the opposing side to throw the ball around. Always do the unexpected. Re-



member, on a hit to the outfield, your boys should always take the turn at first to see where the ball has gone. Don't let them watch the ball after hitting it or while running to first. This takes time and your runners have no time to lose on a close play at first base. This is a common fault. Your coaches on the base-lines must instruct the runners what to do and the runners must listen. On a two or a three-base hit, the runner while rounding second should look to see where the ball is as this determines whether or not he can go further.

With a fast man on first, if the batter can draw the third baseman in with a bunt, the runner on first can make third safely. Good judgment is required on this play. Third basemen, on the other hand, must learn to get back to their base quickly on this play.

On fly balls to the outfield, with no one out or one out and a runner on third, always keep the runner on third base. If the ball is caught, he can start for home on the catch, and if it is a hit, he can easily make it. Runners are very apt to get anxious and start for the plate immediately, and then have no chance to get back to the base to make a start for the plate when the ball is caught.

On a short fly to the outfield, with runners on either first or second or both, runners should lead off a good distance to the next base (depending on the length of the fly), for, if it is caught, they can get back to their bases easily, and if it is missed, they can advance. There is no chance of advance as on a sacrifice fly in such a situation as this. In this same case, with long flies, the runners on first and second should hold their bases and advance as the catch is made.





The start a runner can get to the next base is everything, either on a steal, a sacrifice, a hit or a ground ball of any kind. This is important. Remember, that in baseball as played by others than professionals, the chance that a runner will advance to the next base on a play where a perfect throw is necessary to get him, is greatly in his favor. Perfect throws are not common in teams that do not make a practice of playing to-gether for long stretches of time, and this is just the reason that in amateur teams more bases can be stolen than in professional teams. Without long practice, there is an element of luck in perfect throwing. Even with professional teams one sees poor long-distance throwing in almost every game. Is it any wonder then that teams composed of boys fail in this particular? Don't expect too much of your players. Baseball is a game of the most exacting skill, and skill requires long and continual practice.

#### FIELDING THE VARIOUS POSITIONS.

It cannot be expected in a treatise of this sort that every possible situation which arises in baseball can be dealt with. New situations arise in each game and must be solved at that time. However, I will attempt to deal in a general way with many of the most common situations and will discuss the work of the defensive team at this point.

#### The Catcher.

Some one has said and I think the remark very applicable that "if you have only one man on your team with brains, make him into a catcher". The catcher is the pivot man of the team, the man on whom everything really depends and the only man who has the whole team facing him. For



this reason he is the man who should give the orders and flash most of the signals to the defensive team. He should be preferably a pretty heavy-set man, although this does not always apply. I have seen a number of good catchers of slight build who made good receivers and were excellent generals. The catcher's position on a baseball team is quite on a par with that held by the quarter-back on a football team. His mechanical ability is only one phase of his position and while his mechanical mistakes are serious at times, they form no criterion by which to judge him. His greatest errors are those of judgment, and his worst blunders are those which the ordinary individual does not charge against him and rarely ever notices. He not only must direct the pitching and signal for each ball and for each play with runners on the bases, watch runners and signal the pitcher to make throws, but also he has innumerable chances to throw or not to throw when the slightest hesitancy on his part will mean defeat.

The catcher must make a study of the batter even more closely than does the pitcher. Most pitchers prefer to pitch to orders rather than assume the responsibility of changing them. The catcher must be able to steady a pitcher, must put confidence into him and, when the pitcher is in the "hole", it is the catcher who has the opportunity of pulling him out. The pitcher should not use his best ball until it is needed. If he is getting along all right without his best assortment, he should keep that in reserve to use in the pinches. The aim should be to get the first man up in every inning. It means much to the defensive team. The catcher must see that the infield and outfield are playing correctly and should look around whenever a new man comes to the plate to see that things are



all right. On fly balls anywhere near him, the catcher must call the player to take them. He should bear in mind that on high fouls near the plate the ball always curves toward the pitcher. Consequently, get well back and come forward on the ball.

Coaches should give catchers plenty of practice on fielding short bunts. As a general thing this is neglected. When batting to infield in practice, give the catcher a short bunt to field as often as any other player gets a chance. Have him practice throws to first base on these plays both inside and outside the diamond, as in a game he must decide quickly where to throw the ball in order to avoid hitting the runner. He should call to the first baseman "inside" or "outside" as the case may be, so that the first baseman can shift accordingly.

As to the mechanical part of the catcher's position, he should be well up under the bat but not so close as to interfere with the batter, and should make a target for the pitcher. Catchers! Keep your fingers together and straight so that if a foul tip hits them it will be as a whole and not damage one finger. A foul tip striking the hand with the fingers spread will do much more damage than if the fingers are together. Catchers must learn to remove the mask quickly on foul flies and throws to the plate. Some consider it good baseball to attempt to block a man at the plate. I do not. It is beating the spirit of the rules of the game if not the letter, and is morally wrong. I would advise against it if for no other reason than that it is dangerous. The catcher is usually the best or one of the best players on the team and why risk injury. Play the plate the same as any other base with the feet spread on each side of it facing third. Then the runner must slide into the catcher's gloved hand holding



the ball. The catcher has just as good a chance to put the runner out this way as by the more dangerous blocking method.

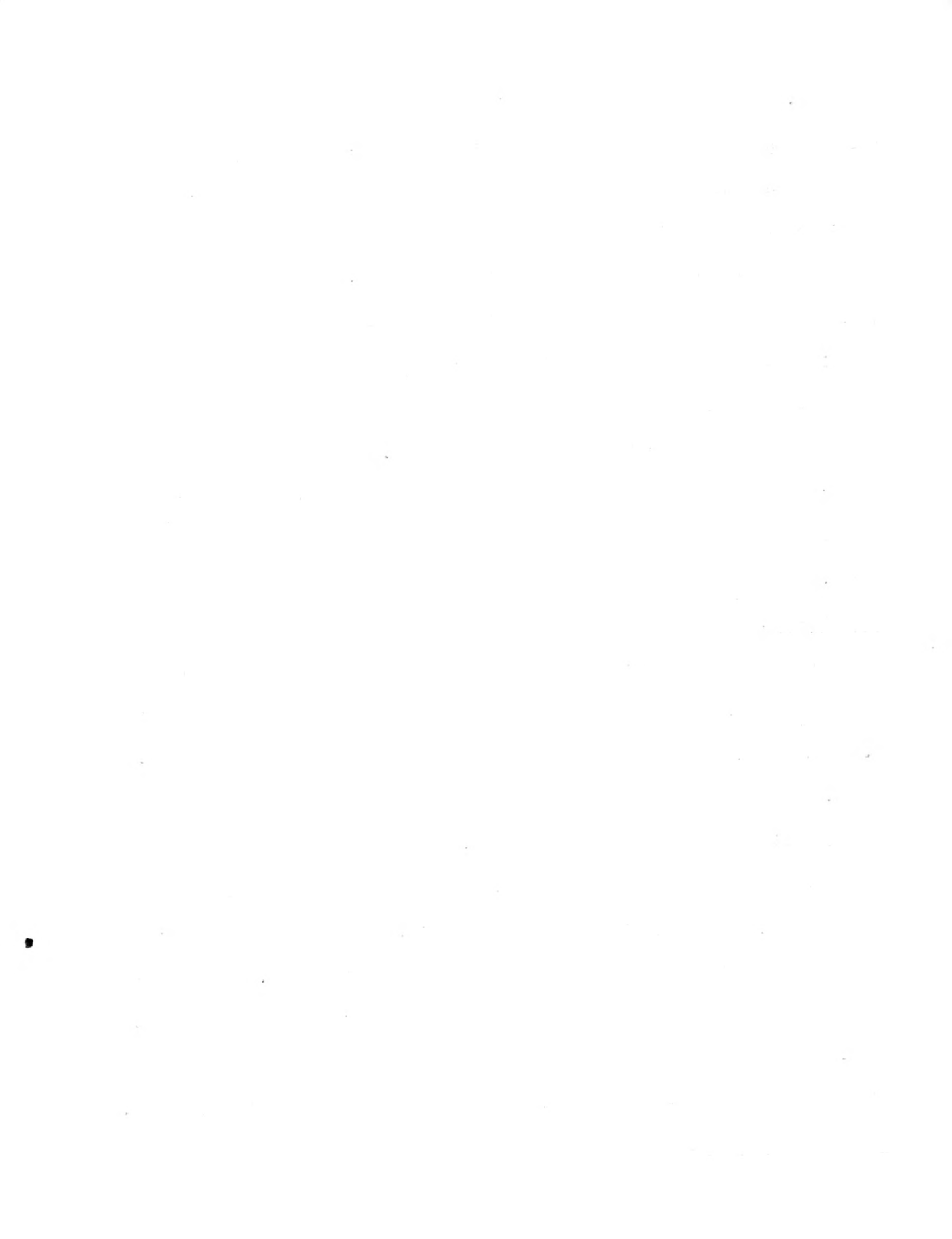
The catcher must be doubly wide awake with men on the bases. Practice continually on throwing to bases to catch runners and do not hesitate to "cut loose" to keep the runners hugging the bases. To the catcher I would say, "Make runners feel that they will surely be caught if they play too far off the bag." A play of this kind requires a waste ball from the pitcher. It should be shoulder high and outside for throws to first and second and the same inside for throws to third.

A few examples which will serve to illustrate some of the throws a catcher can make with men on bases will be given under the heading "Team Work".

#### The Pitcher.

Coaches should see that their pitchers get lots of practice in fielding bunts, and covering first base on wide ground balls to the first baseman. Instruct your pitchers to back up the basemen on all possible plays. If the play can be made at several places, the pitcher should choose the most likely or the one nearest home. In backing up he should play about twenty feet behind the baseman. If he is nearer than this, there is a chance that the ball will get away from him. Have your pitcher cover bunts toward third when there will be a play at third base. It is one of the duties of the pitcher to see that the runner touches all the bases. Left-handed pitchers should practice on a deceptive balk motion toward first base and right-handers should practice the same toward third base.

#### Advice to Pitchers.





Never intentionally put the ball in the "groove". Work for the corners. Try to get your curve ball to break low on the outside corner and your fast ball either high or low on the inside. Acquire the use of a slow ball or "change of pace".

A choked bat usually indicates weakness on outside balls; bats held at the end may indicate weakness on inside balls. This of course depends upon the way a man stands at the plate.

Keep the ball on the outside corner for batters who pull away from the plate.

Walk a heavy hitter to get a weak one. It is good baseball.

Remember who hit the hardest and what kind of a ball he hit.

Don't throw easy to bases. There is more chance of throwing the ball away. Toss when you are close to the baseman.

### First Base.

A tall, rangy man on first base makes a good target for the rest of the infielders and gives them confidence. This does not mean that you must always pick out such a man, but other things being equal he is your best man.

The hardest thing to teach your first baseman will be how to shift his feet on throws so that he will not cross one leg over another. Have him practice taking every throw with the base between his feet and then shift the feet by a hop from one side of the base to the other according to the throw. A diagram will illustrate this.

Ordinary

L // R

Right Shift

// L R

Left Shift

L R //



This must become a habit with the first baseman so that he will almost do it without thinking. Otherwise, he will be paying more attention to his feet than to catching the ball. The first baseman must become so familiar with the position of the base that he can locate it with his feet almost by instinct. When jumping for the ball he should come down with the feet spread so that one foot will touch the base. Quite often a first baseman will have to use his gloved hand alone in taking throws. One-handed catches are all right in their place but they should not be made so habitual that two-handed catches cannot be made. Don't let first basemen use one hand when two can be employed.

On a bad throw the first baseman should not stick to his base if there is any possibility of the throw getting away from him. It is better to loose the man at first than to run the risk of missing the ball and of the runner taking second or third.

When the first baseman has fielded the ball and is running to first to put out the man, if the play is close, a good way of avoiding a collision is to slide into the base feet first.

Probably no two first basemen play the position alike, but the common method of playing the base with a runner on may be illustrated by this diagram,  $\frac{1}{n}$ , giving the runner the portion of the base away from the diamond and allowing the baseman one step nearer the field of action with ease of movement on both sides of the base.

It is hardly possible to indicate the exact spot on which the first baseman should play with no runner on first. A few suggestions, however, might aid the young player in determining the spot.



Play deep on a fast field and come in on a slow field. Ordinarily, play more toward the line and deeper for a left-handed hitter except when a fast pitcher is working, then more toward second. For a right-handed batter play more toward second with a slight change to the line for a fast pitcher.

### Second Base.

This position has often been called the keystone position or the pivot position of the infield, probably because the second baseman has more work to do in connection with the other infielders. For example, he should cover second on double plays from either third or short and must cover first when the first baseman has gone in after a bunt. He must have a perfect understanding with all the other infielders.

The same general rules apply to his position of play with nobody on the bases as they do to the first baseman. Ordinarily he should play closer to second than to first, come in on a slow field and handle all slow hit balls to the right of the first baseman that the first baseman might reach but would have to throw to the pitcher covering first base.


With nobody on first the second baseman should back up ~~first~~ on all balls fielded by the catcher, pitcher or third baseman. He should cover first whenever that player leaves it either to field a bunt or catch a fly ball.

The usual thing is to have the second baseman take throws at second from the catcher when a right-handed hitter is at bat and back up short when a left-handed hitter is up and the catcher throws to second for any reason. The second baseman must play a little closer to second when there is danger of a man stealing. He should always make sure that second base



is covered when there is a possibility of a play there. When second and short are jockeying a runner on second base, the pitcher must give them a chance to start back to their positions before pitching the ball. Otherwise there is a big "hole" in the infield and a heady batter may make a safe hit by placing the ball in the "hole".

On long hits to right field or right-center, the second baseman should go out to help relay hits to the infield or to home.

In covering second on an attempted steal, both second baseman and shortstop should cover as per the following diagram:- . This makes the runner slide into the ball and offers the best opportunity for putting the ball on the runner. On double plays where the second baseman covers, he should step on the outside of the base with the right foot, then away from the line to be out of the way of the runner and throw at the same time.

When playing for a man at the plate, the whole infield should come in close, generally about three to five feet inside the base-line. All infielders should be taught to watch for the good bound. The ball should be taken after it reaches its highest point in the arc described when bounding, preferably just before it again touches the ground.

#### Shortstop.

This position requires that the player be in constant co-operation with the second baseman. Both must get used to each other and know instinctively what the other fellow is going to do. The shortstop is ordinarily and should be faster than the second baseman and should have an excellent throwing arm. He must be able to get the ball away fast and





throw from any position. After stopping a fast grounder, holding the ball is many times disastrous both as to getting the runner on first and as to accuracy of throw. If the throw is gotten away fast and is a poor one, the first baseman may leave his base to get it and still put the runner out. This is not true of course when plenty of time is taken to make the throw.

In playing for a double, toss the ball shoulder high to the second baseman when near the base, and when very close, within two or three steps, the shortstop should touch the base himself and step out of the way to throw. When he covers the base on a double play, he should be in motion when he catches the ball on the base. This makes a faster play.

The shortstop should take all fly balls back of second base for he is running on the side of his gloved hand and can therefore make the catch more surely.

Right here let me say that infielders should take all fly balls they can get their hands on. Coaches should insist that this be the invariable rule so that there will be no collision with outfielders. On balls to the right of second base, the second baseman must call who is to take it; on the left, the shortstop should call. As a usual thing, the shortstop takes all fly balls back of third base because he plays deeper and does not have to run directly back to get them. There should be a definite understand<sup>ing</sup> to this effect with the third baseman, although good judgment must be used as the third baseman is in the best position in some instances.

The shortstop plays deeper for right-handed hitters than for left-handers. With fast pitchers, he should work more to the left for right-handed hitters and vice-versa for left-handed hitters.



With a man on first the shortstop should cover second on balls fielded by the catcher, pitcher, first or second basemen to the left of second base, being in a better position to throw in case there is a possibility of a double play. He should back up the third baseman on thrown, fly or foul-fly balls and should see that third base is never left uncovered when there is a possible play at that base. Also with a runner on first and a left-handed hitter up, he should cover second on an attempted steal. If this play is turned into a hit-and-run, there is a greater possibility of the ball going to the second baseman than to the shortstop.

When a runner is on second, the shortstop should play constantly behind him and worry him. There should be a signal for a throw from the pitcher to catch this runner. Either pitcher or shortstop may give the signal by some movement of the glove, head, eyes, feet, etc. or the catcher may give it to both, but in any case it must be answered.

On slow hit balls through the pitcher's box, the shortstop coming in fast should field them. Shortstops! Go after everything you can lay your hands on and don't be bothered by the possibility of an error. With a runner on second and none or one out, play a ground ball to catch the runner at third unless it is very slow. Time and again, the shortstop, by a motion to throw to first, can make a runner on second start for third and in such a case trap him between second and third. This requires quick thinking on the part of the shortstop and a knowledge of the runner as to whether or not he will take chances.

All infielders should study the batter, his habits on the bases and the general direction in which he hits the ball, and then play accordingly. In doing this the infielders will no doubt play out of their accustomed



positions many times.

### Third Base.

Third base has often been called the difficult corner because of the fact that the baseman plays closer to home plate, gets many hard line-drives and the ball comes faster from the bat than at any other position on the infield.

On bunted balls the third baseman has the most difficult throw on the infield and must therefore have the best arm both as to strength and accuracy. He must study the batter's intention to bunt and play close or otherwise according to his decision. Ordinarily, his position is on the base-line about twelve feet from the base. For left-handed batters he plays in closer and further from the base. With the score close and a runner on first, the expected play is of course the bunt and he should play close for that accordingly.

Bunted balls close to the line will usually roll out if left alone because of the way they are twisting. Watch the ball carefully and let it roll out if possible. Each time this is done the possibility of the batter attempting it a second time is lessened.

On slow hit balls to the shortstop, the third baseman should move to the left quickly and take everything he can get his hands on, as the shortstop plays deep and will often field a ball of this sort too slowly to get a fast runner.

With runners on second or first and second and less than two out, the third basemen must let the pitcher cover bunts in his territory, but must use his judgment as to whether or not the pitcher will be able to reach

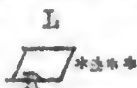


them. Third basemen should not hesitate to go after the ball if in their judgment the pitcher will not be able to reach it.

On high flies in the pitcher's territory, the first and third basemen, especially the third baseman, being nearer to the play, should get them. The pitcher is more nervous than are the basemen. Hence, the reason for this. However, basemen should follow this motto, "Don't butt in on an easy pop-up directly in the pitcher's hands". More than once things have been messed up on this account.

A bluff throw to first on a ground ball with a runner on second will nine times out of ten draw the runner off second so that he may be trapped between bases. Watch this play carefully. Take a look at the runner before you bluff the throw. Judgment is required here. The runner will very seldom try to advance on a hard hit ball.

On an attempted steal the third baseman should cover the base as per the following diagram:-



making the runner slide into the ball.

On sacrifice flies to the outfield the baseman should see that the runner does not leave the base ahead of the catching of the ball. The way to watch both at once is to stand outside the diamond with the runner between the baseman and the catch. If the runner leaves ahead of the catching of the ball, the third baseman should touch the base with the ball in his possession and call for a decision from the umpire. Another duty of the third baseman is to see that a runner on second touches third on a single to the outfield.

To all infielders I would offer this bit of advice. Throw the ball around after a play with no one on the bases so that your arms will be





kept warm.

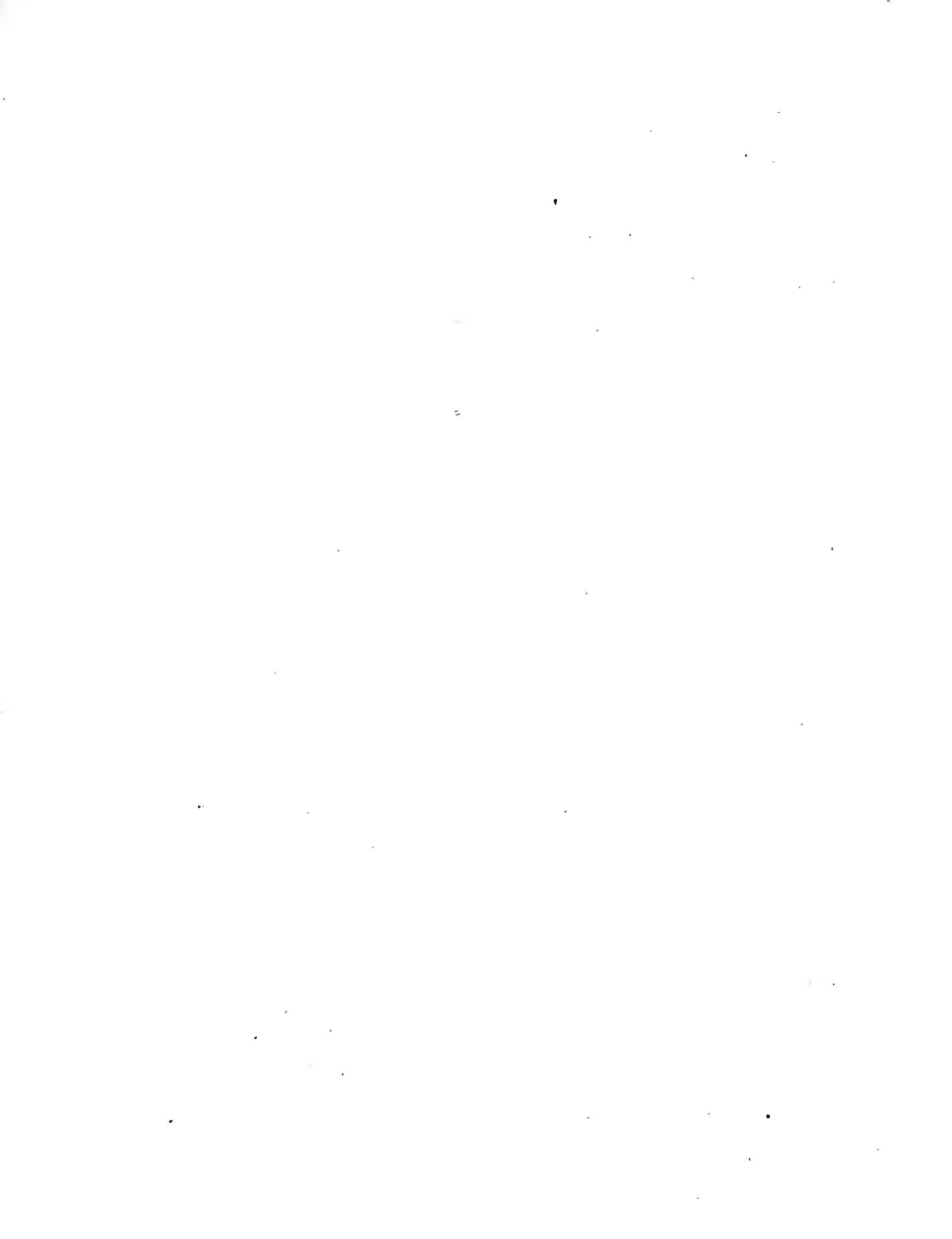
### The Outfield.

In choosing your outfield, your fastest man should be played in center field for he must cover more territory and back up second base. However, center field cannot really be called the hardest to play, even considering the above fact. The right fielder has the hardest type of balls to catch because of the way they curve after leaving the bat. In most amateur teams, however, the strongest outfielders are found in left and center, as comparatively few balls are hit into right field. Put your poorest thrower in right field as he has the shortest throw to make. Very often a new man is put into right field, having the least number of chances to handle.

When left-handed pitchers are working a dependable man should occupy right field as more chances come then than when right handers are pitching.

It is often the case in high school teams that the poorest players are relegated to the outfield. This should be avoided, for, if ball games are to be won by depending on someone besides your pitcher, the outfielders should be strong. Slow outfielders will give your opponents many runs at critical moments, where a fast outfield would cut off the runs. Your outfielders should be looked to for some good hitting for they are the ones on whom there is less of a strain. All should be good on ground balls and should have good throwing arms. Without a strong throwing arm an outfielder is of little value, at least so far as fielding is concerned.

There are two general ways of catching fly balls.



1. Let the ball come into the glove on the little finger side. This is the easiest and surest way and balls should be taken that way when possible, excepting of course balls below the waist.

2. Let the ball come into the glove on the thumb side.

Practice this method most as the difficult catches are made in this manner, as for example, when coming in fast or when running to either side.

Catching flies, however, is the least part of the work of the outfielders. They must not only be able to catch fly balls, but catch them in position to make a throw the instant the ball touches the hands. Most any player with practice can be taught to judge a fly ball. They should become so accurate in this judgment that they will be off at the crack of the bat. Be sure your players get in the habit of using two hands. Never let them use one hand unless conditions are such that the ball cannot be reached in any other way. Bench your grandstand players of this type and they will soon get over it.

Give your outfielders a lot of practice on ground balls and make them run for the balls. Coaches are very apt to neglect this phase of outfield work. When giving fielding practice to the outfielders make them run for the ball in all cases. Dropping the ball into the hands of the fielders get them into bad habits. If your outfielders are poor on ground balls, make them get their bodies in front of the ball and at least stop it. Instruct your outfielders to get the ball first, then throw.

You must use your own judgment when it comes to the outfielders bouncing the ball to bases. If the ground is rough, it will not be policy, but the general rule on a smooth field is "bounce the ball to bases and



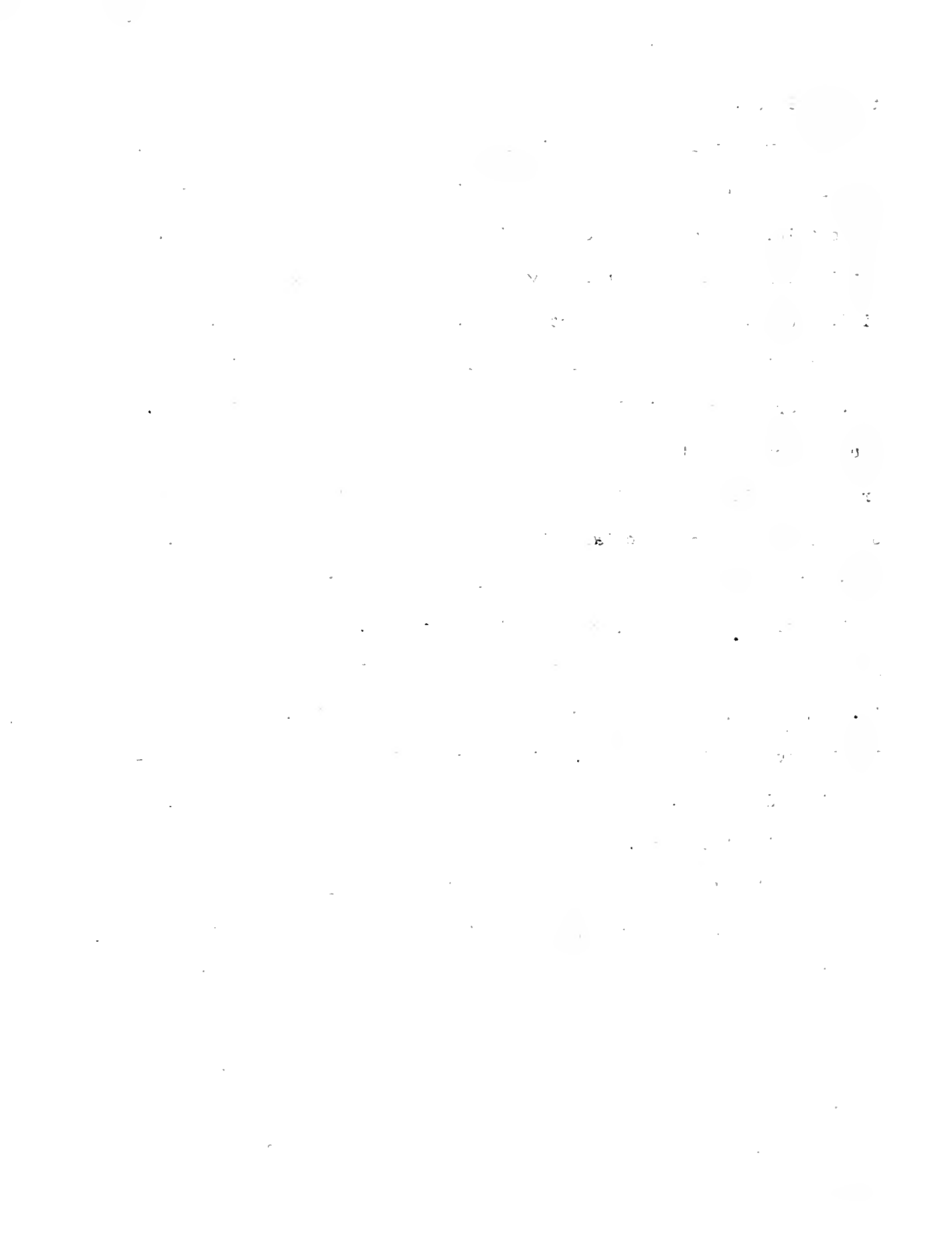
to the plate".

The great value of an outfielder lies in his study of the batter. He must take note of where the batter hits and when this is discovered the outfielder should play out of his natural position if necessary. Outfielders should constantly have in mind weather conditions, such as wind, clouds, etc., the background, etc., and play accordingly.

For high school baseball the outfielders should play fairly close in. There is very little danger of the ball going over their heads. The batters are not strong enough or accurate enough with the bat to drive the ball a great distance. Practice the outfielders most on going back for fly balls, especially if they are taught to play close in. The player in this case must turn and run, and not simply back up. Backing up is a clumsy way and player are liable to trip. They should turn and run to the place where they think the ball will land and then face toward it. Some players become expert at this type of catching. Others will run looking over their shoulders. This of course is the safest way for inexperienced players. When catching a ball with the sun in the eyes, shade the eyes with the glove.

There is often a great controversy in the outfield as to who will take a fly ball. The shortstop in the infield should call on his side of the diamond as well as the two outfielders involved. "You take it" or "I have it" for the outfielders and the player's name several times for the infielder. On the other side of the diamond the second baseman should call.

In practice, instruct your outfielders to get the ball away as fast as possible. This will soon become second nature to them. They should



practice a few throws to the plate every day; also to the bases.

When the ball is hit between two fielders, there must be a perfect understanding as to who will go after it and who relay. A moment's hesitation will often transform a two-base hit into a three-base hit and a three-base hit into a home run. They must call to each other on balls of this kind.

The outfielders must assist with the infield work as much as possible. Back up bases whenever practicable. Always come toward a base when a play is being made there.

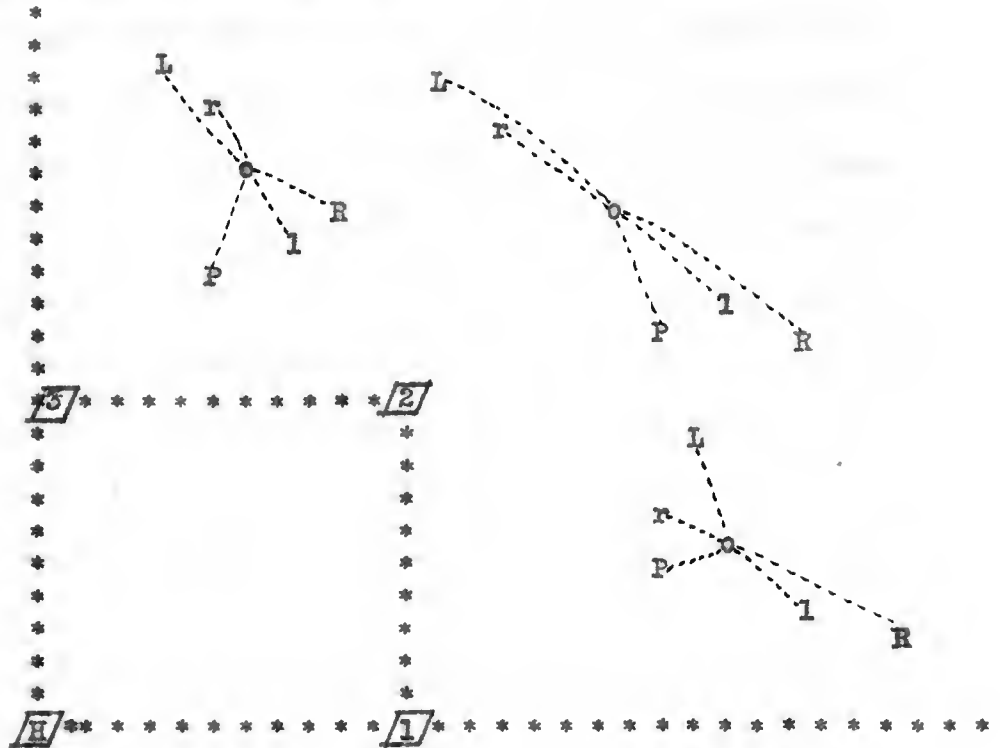
In throwing they should take but one step as any other type consumes just that much more time. Men are often caught at the plate by a fraction of a second and the same is true at the bases.

As has been said before judgment is required in the outfield. You must instruct your outfielders to figure out beforehand what they are going to do with the ball if it comes to them. Let me give an example. With a runner on second base the batter singles sharply to the outfield. The score is tied or one run needed to tie it. In this case I would advise the outfielder to come in fast, scoop the ball and play for the man at the plate. Try to cut off that run. When your side is two or three runs ahead, take no chances but hold the batter on first.





The General Shifting of the Outfielders.



Key to chart.

- o - Theoretical position.
- l - Shift for left-handed hitters.
- r - Shift for right-handed hitters.
- L - Shift for strong left-field hitters.
- R - Shift for strong right-field hitters.
- P - Shift for left-handers who pop over the infield.

Note:-

This diagram is entirely general. Specific instances must be played differently.



## TEAM WORK AND "INSIDE BASEBALL".

Baseball games are won by team work and "inside baseball" both in the field and at bat, notwithstanding all that may be said to the contrary. The importance of a study of the offensive with your team in the field or of a study of the defensive with your team at bat cannot be too greatly emphasized. Study the opposition at all stages of the game. The coach can do much toward keeping his players on their toes all the time. He should work with the captain and hold consultations as to the best methods of play, etc. The coach needs the viewpoint of the captain, and should not be arbitrary or dictatorial in his attitude, but, on the other hand, he should make the players feel that he is chief. The players must respect the orders of the coach if things are to go smoothly. Harmony is the strength of all institutions. Obtain harmony above all things else.

### In the Field.

Each player must know just what is expected of him on the defensive or in the field. He must have definite things to do and do them. The diagram on the following page illustrates the ground covered by the infielders on the defensive. The diagram has been taken from "Touching Second" by Evers and Fullerton.

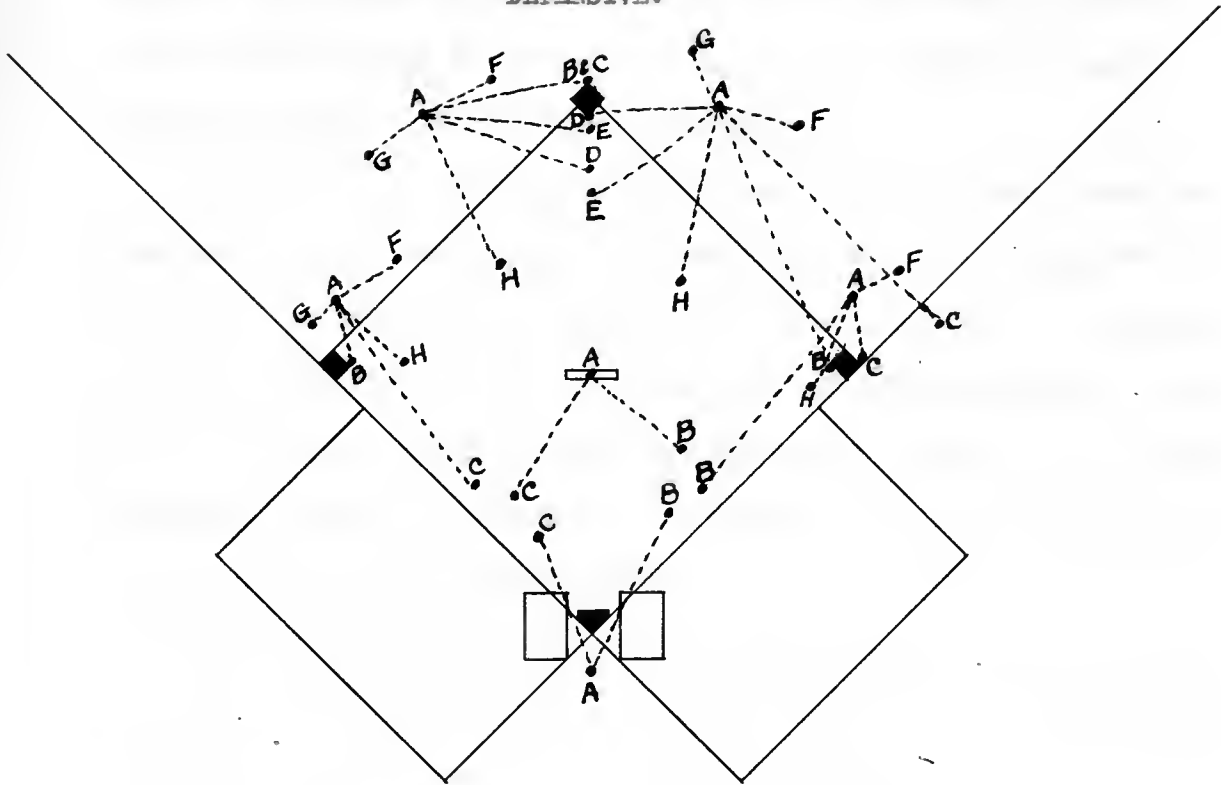
The combination plays which the infielders may make are numerous and I will cite only a few of the most common which may be used in high school play.

### Breaking up the Double Steal.

With runners on first and third, there are several plays the de-



DIAGRAM ILLUSTRATING THE GROUND COVERED BY THE INFELDERS ON THE  
DEFENSIVE.



A - Normal Position.

B - Positions on bunts toward first base.

C - Positions on bunts toward third base.

D - Positions on attempted double steal from first to second and third to home with shortstop taking the throw.

E - Same with second baseman taking the ball.

F - Positions when right-field hitter is at bat.

G - Positions when left-field hitter is at bat.

H - Infield pulled in to catch runner at the plate.



ensive team can make to break up this double steal. The foregoing diagram illustrates the positions taken by the infielders; shortstop covers second and the second baseman comes in to a position about fifteen to twenty feet in front of the base.

1. The catcher may whip the ball to second base as the runner on first starts. The second baseman either takes the throw or lets it go through to the shortstop, according to whether or not he has a chance to get the third base runner going to the plate or playing off his base. He is in the correct position to take the ball and throw to either place and should execute the play fast. The throw of the catcher should be on a line just above the pitcher's head.

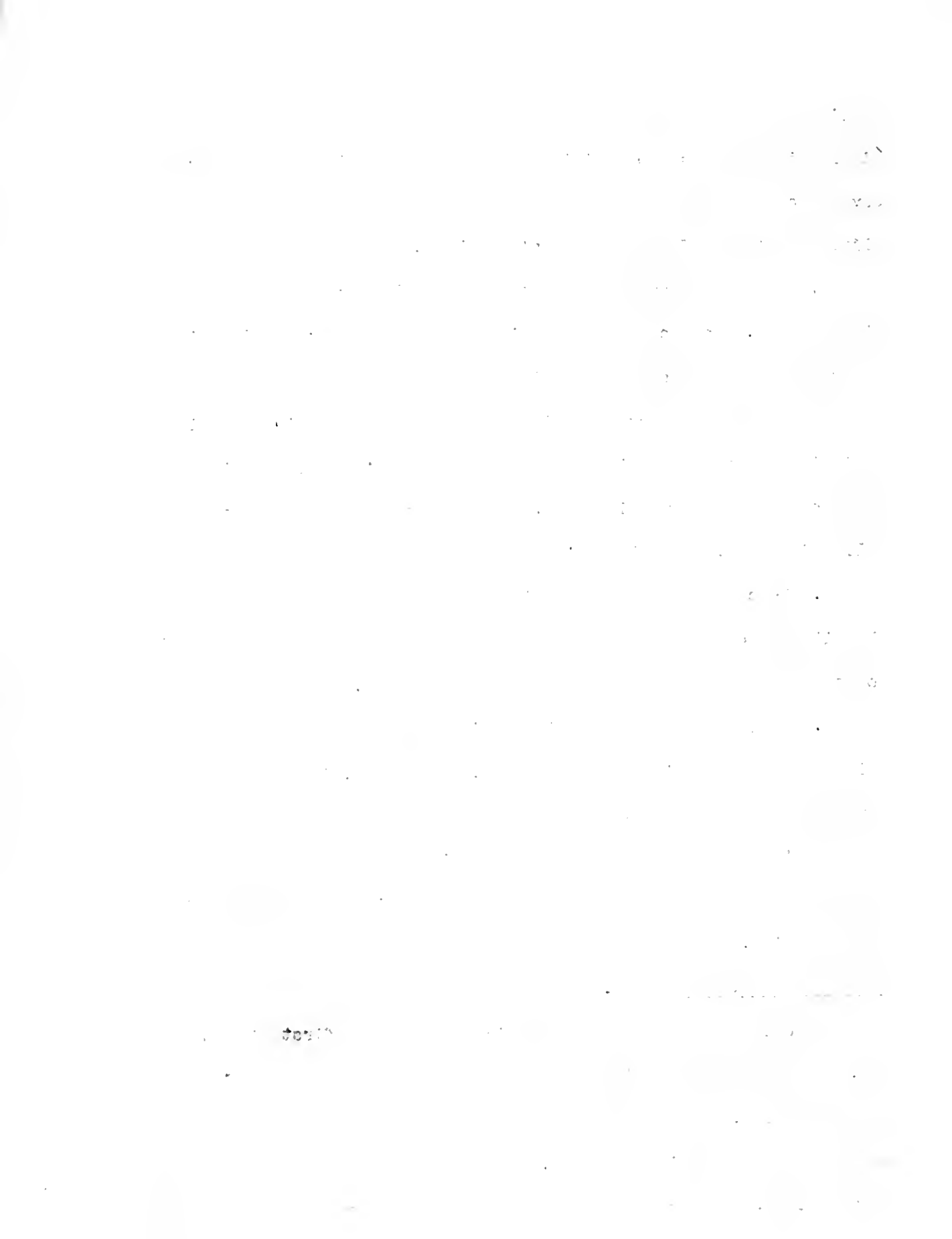
2. The catcher may throw as if to second base but low enough for the pitcher to take the ball. The pitcher then throws quickly to third to catch the runner about to make a dash for home.

3. The catcher makes a motion as if to throw to second but instead whips the ball to third and the runner, off balance, is trapped before he can get back to the base.

The idea in each one of these cases is to get at least one man, preferably the man on third. For perfect execution this play requires much practice.

#### The "Fake" Play for a Bunt.

Suppose for example that there is a runner on first with nobody out. The natural play unless the offensive were several runs ahead would be a sacrifice, with the first baseman dashing in for the bunt and the second baseman covering the base. The catcher calls for a pitch out or a waste ball. The first baseman dashes in as per usual and the catcher





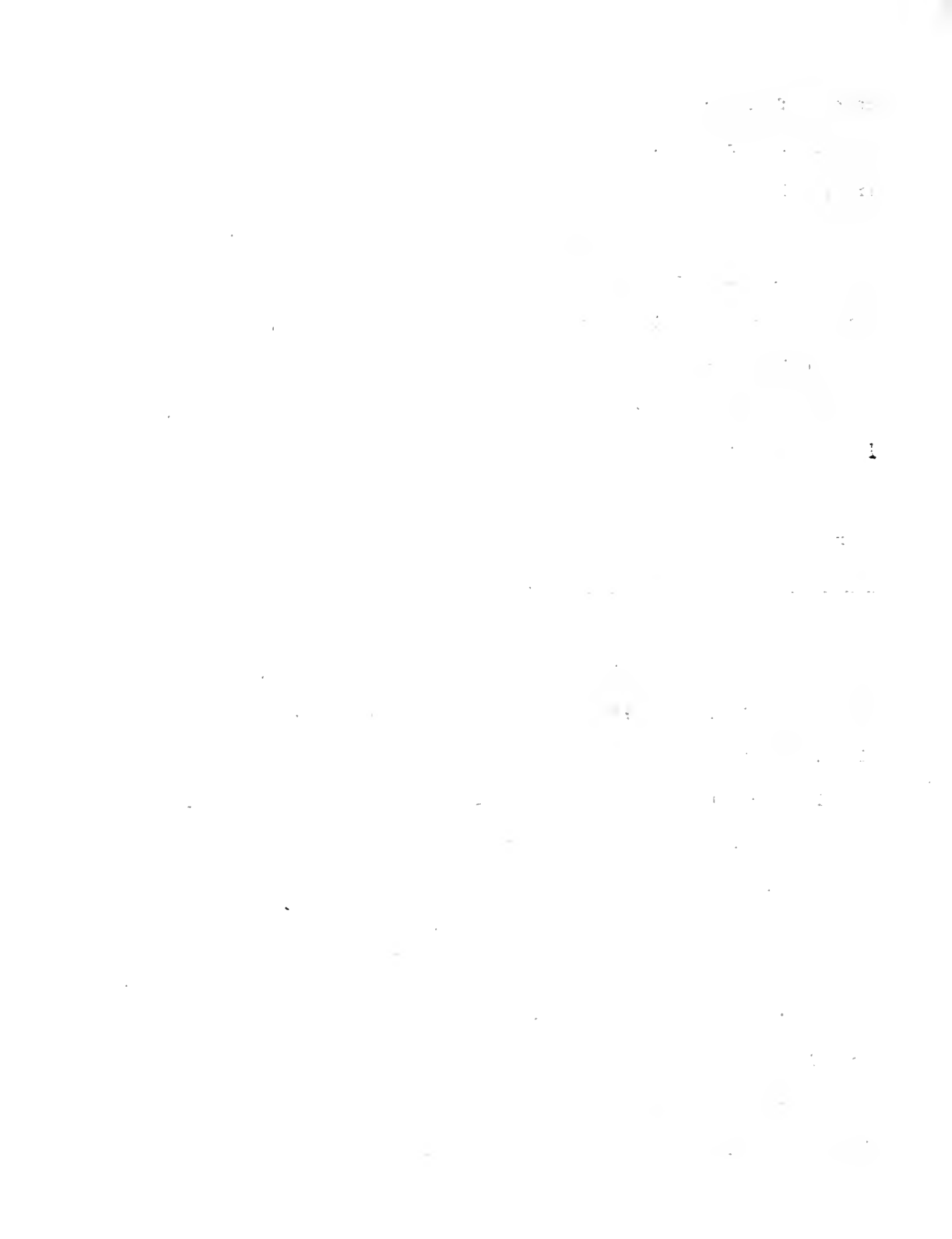
makes a fast throw to first base just as the second baseman, on the dead run, gets there. This will many times catch the runner asleep or off his balance.

The same sort of a play can be made at third with one out when the squeeze play is expected. The third baseman dashes in and the catcher throws to third, covered by the shortstop. The runner as in the previous case is many times caught unexpectedly.

In each of the above cases a signal is necessary with an answer. In the first instance, the second baseman gives it by some motion of the body and is answered by the catcher; in the second example, the shortstop gives it and receives his answer from the catcher.

#### Throw from pitcher to third base.

A play that was used with great success by the 1920 California Baseball Team was one which the boys developed themselves. With a runner on third, the third baseman would play as per usual but at a signal from the pitcher would be set to receive a throw at the base. The pitcher in this case makes a half-balk motion just as a left-hander does to first. The third baseman simply dives for the ball and touches the runner. I have seen many players caught flat-footed because of the unexpectedness of the play. Only once during the entire season did the ball get away from the third baseman and cost the team a run. This was, as you may well expect, in the crucial contest of the season. The game was only won by the Freshman Team in the last half of the ninth inning. Yet it was worth while taking the chance for the score was then tied with only a runner on third and nobody out.



### Runners on first and second with two out.

In this case the first baseman plays behind the runner and at a signal the catcher throws to first. The first baseman dashes in at full speed behind the runner, receives the ball and traps the runner in quite a few instances. Care must be taken on this play, however, as a wide-awake, fast man on second base will take third easily.

The catcher, by quick thinking, has many opportunities to catch men off bases. He must know when to throw and when not to throw. Often with a runner on second, a fast throw from the catcher when the shortstop has signaled will catch the runner. Let us suppose an example which frequently comes up. A runner is on second and has too big a lead when the catcher receives the ball. The runner is almost half-way to third. Now, if the catcher were to throw to second, the runner by a good slide would probably make third on the relay. Or, if the catcher throws to third, the runner could return safely to second. What should the catcher do in this case? He should run into the diamond directly for the runner and force him to go one way or the other. Then his throw will get the runner whichever way he goes.

### Pitcher's throw to second.

With a runner on second, the second baseman and shortstop should keep him continually worried, first one running in to the base, then the other when the first man has started back to his position, and so on. If a runner is getting too big a lead, it is desirable for the pitcher to throw. This he may do either by a signal from the catcher or a set of signals between himself and the shortstop. A simple signal from the catcher may be made by that player placing his right hand on his right knee, bent

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

2. The second part outlines the various methods and tools used to collect and analyze data. This includes the use of surveys, interviews, and focus groups to gather qualitative information, as well as the application of statistical software for quantitative analysis.

3. The third part details the process of identifying and measuring key performance indicators (KPIs). It explains how these indicators are used to track progress and evaluate the effectiveness of different strategies and initiatives.

4. The fourth part discusses the challenges and limitations of data analysis. It highlights the need for careful interpretation of results and the potential for bias or error in the data collection process.

5. The fifth part provides a summary of the findings and conclusions drawn from the analysis. It offers insights into the strengths and weaknesses of the organization and suggests areas for improvement and future research.

as the knee is bent. This indicates that the shortstop should run to cover the base and that the pitcher should get ready to turn and throw. At the proper instant, that is, when the shortstop is well on his way to the base, the catcher lifts the fingers of his hand so that they are on a direct line with the palm and not at right angles. The pitcher throws and the shortstop has just reached the base in time to get the ball.

The set of signals between the shortstop and the pitcher is more complicated. One example of such a set may be cited. The shortstop, behind the runner, spits in his glove when the pitcher is looking his way. If the pitcher wishes to throw he spits so that the shortstop may see him. The shortstop starts for the base at that signal, the pitcher faces the batter, counts three at about the rate of the clock tick in seconds, turns and throws. The count of three just gives the shortstop time to get to his base to catch the ball.

#### The play when the runner is trapped between bases.

Let us suppose an example in which the runner is trapped between first and second on a throw from the pitcher. There should be two men at each end of the play to take the ball. At the second base end the shortstop and second baseman are handy. At the first base end there should be the first baseman and pitcher until the catcher comes to relieve the pitcher, in which event the pitcher stations himself on first base to back-up the play. After one has thrown the ball, he should step out of the way and let the next throw be taken by the player back of him, keeping up a continual circle so to speak. The rule to follow for players is, "Always run the man back to the base from which he came". There should never be a runner lost by this method.

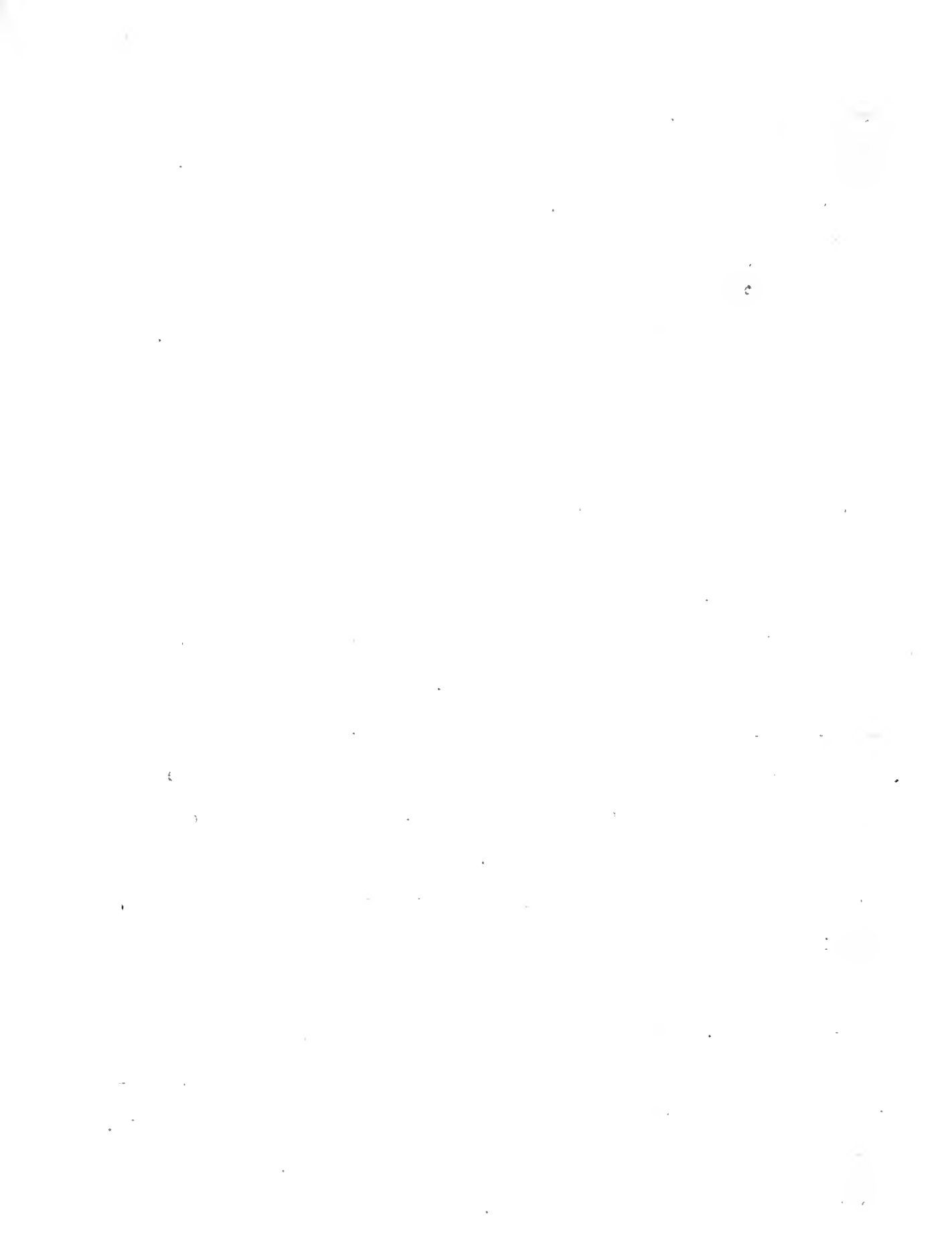
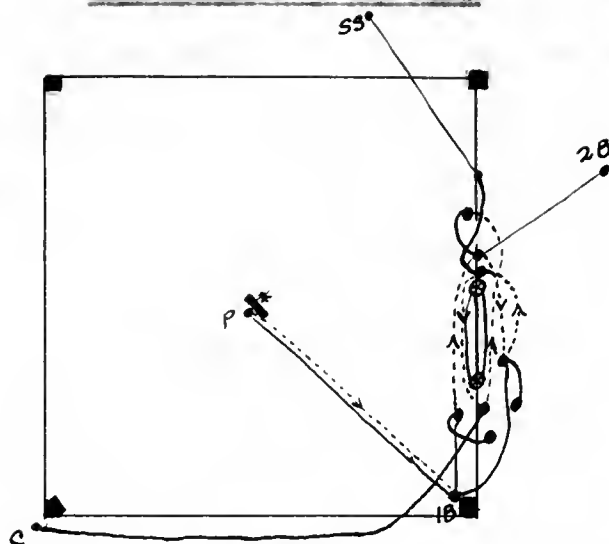


ILLUSTRATION OF THE PLAY.LEGEND

● - Runner

● - Member of the defensive team.

————— - Path of runner or member of the defensive team.

- - - - - - Path of the ball.

\* - Starting point of the ball.

When a runner is trapped between second and third, the second baseman, shortstop and first baseman should be at one end and the third baseman and pitcher at the other end ( third base end ); or the shortstop may move over to the third base end, if this is convenient, and relieve the pitcher. Still another way of handling this particular situation would be to have the catcher come up to help out the third baseman and the first baseman cover home plate. It is necessary that home plate be covered by some one in this case. If a runner is trapped between third base and home, the third baseman and shortstop cover one end and the catcher, first baseman and pitcher the other. Two players at each end can work to the best advantage, but when possible there should always be a player stationed





on the base from which the runner came so that in case the runner gets by the other two he may still be caught. When the runner is trapped between third and home the pitcher should play at the plate. If there are other runners on bases besides the one being trapped the play should be such as not to leave uncovered any base to which a runner may go.

Occasionally infielders get away with unique bits of strategy. For example, when the hit and run play is attempted and the batter hits a fly to the outfield, the base-runner hearing the crack of the bat, must judge from the actions of the fielders in front of him what has happened. When such a situation comes up, the shortstop and second baseman may go through all the motions of trying to stop a grounder, or diving after a hit. The runner, fearing lest he be forced out at second, tears along under the impression that the ball has gone through the infield. Sometimes he may be on his way to third before the outfielder, catching the ball, tosses it to the first baseman to complete the double play.

Another chance for possible strategy comes with runners on first and second and less than two out. A short fly is hit to left field. Both runners seeing this stay close to their bases. The outfielder drops the ball, throws to third, and the third baseman relays to second for a double play on forced outs.

One could go on with instance after instance of this sort, but the above should be food for thought and aid in developing similar situations.

#### AT BAT AND ON THE BASES.

The first thing to be considered when the player is at bat is how he may be able to get on the bases, and next how he may score a run. He



cannot be expected to hit safely each time at bat, but there are other means of getting on the bases besides hitting safely.

The first batter up in each inning should attempt to work the pitcher for a base-on-balls, that is, unless his team is many runs ahead. He should therefore take two strikes and be sure that the ball is over before swinging at the third. With the score close a base-on-balls is equal to a hit. Wait out the pitcher and make him throw as many times as possible, is the advice I would offer the batter. This not only tires him but gives the offensive team a chance to size him up, to see what sort of a delivery he has, what type of balls he throws, etc. Often the first batter up in the inning, if a left-hander and fast, attempts to bunt and beat it out. The bunting game is a good game to play with a big, clumsy pitcher or one who does not field his position well.

If after a few innings it is seen that the opposing pitcher has good control, pick out the ball that looks best. Very often when a team is waiting out a pitcher and he knows it, he is inclined to put the first ball over the plate, "very fat" as the slang phrase goes. As has been said before, batting is not only a question of good eye, proper swing, courage, etc. but it is a game of wits - outwitting the pitcher. Do the unexpected at all stages, is our motto.

Let us suppose that the score is close in the first few innings of play and that the team at bat has a runner on first base with nobody out. The play now is for the batter to bunt and sacrifice the runner to second where a clean hit or an error may score him. No signal should be used for the sacrifice play. The batter must pick out the good ball and make as per-



fect a bunt out of it as possible. The sacrifice game applies also with the score close and runners on first and second. A sacrifice made at this time puts the runners on second and third with only one out and gives the next batter a variety of things to do. He may work the "squeeze play" or hit a sacrifice fly scoring the man on third, or he may attempt to hit fairly scoring two men and probably go to second himself on the throw-in to the plate.

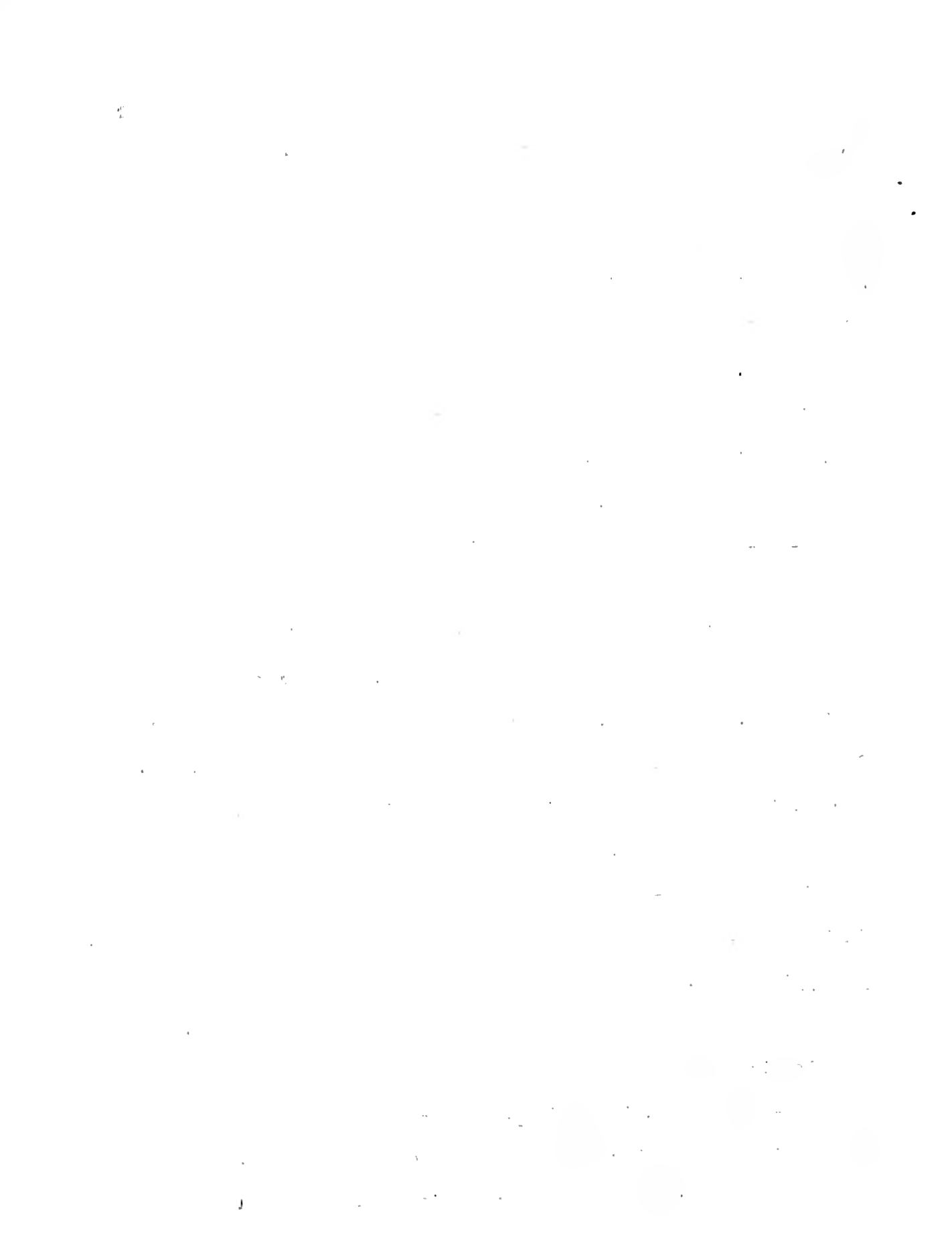
With the score greatly in your favor, or against your team several runs, sacrificing is not the game as you do not figure on it netting you more than one or two runs. At such stages of the game it is best to work the hit-and-run play, the steal, or simply instruct your players to hold their bases and wait till the batter hits; the latter nearly always, in case the score is against you several runs. The play in any event depends upon what defense is offered by the opposition, and what offense your team has to offer. For example, if your team is on the offensive and your players are fast men, you can play a very shifty game, stealing, etc., whereas, if your men are slow it would be unwise to do this, especially if they are good hitters. Personally, I believe that speed is the great thing in baseball to-day, particularly so when your team plays the "inside game".

#### The batting order.

It may help to know the general theory of the batting order.

The first man on the list should be a good waiter, a fast man and a good base-runner; and, if possible, a left-hander who can lay down a bunt and beat it out; in other words, a man to worry the pitcher.

Second place calls for a good sacrifice man, to bunt in case the



first man gets on base. He should also be fast and a good base-runner.

The third man should be a consistent hitter, a batter who can work the hit-and-run play if necessary.

Fourth place is given to the hardest and heaviest hitter on the team, one that can clean the bases with his hit.

Fifth place is also given to a hard hitter. When there are two very hard hitters on a team they are placed fourth and fifth in the batting list. Many coaches prefer to have a consistent hitter occupy fourth place and shift the hard hitter to fifth place, that is, if he is not very consistent. Fourth and fifth places may be given to men who hit generally for extra bases.

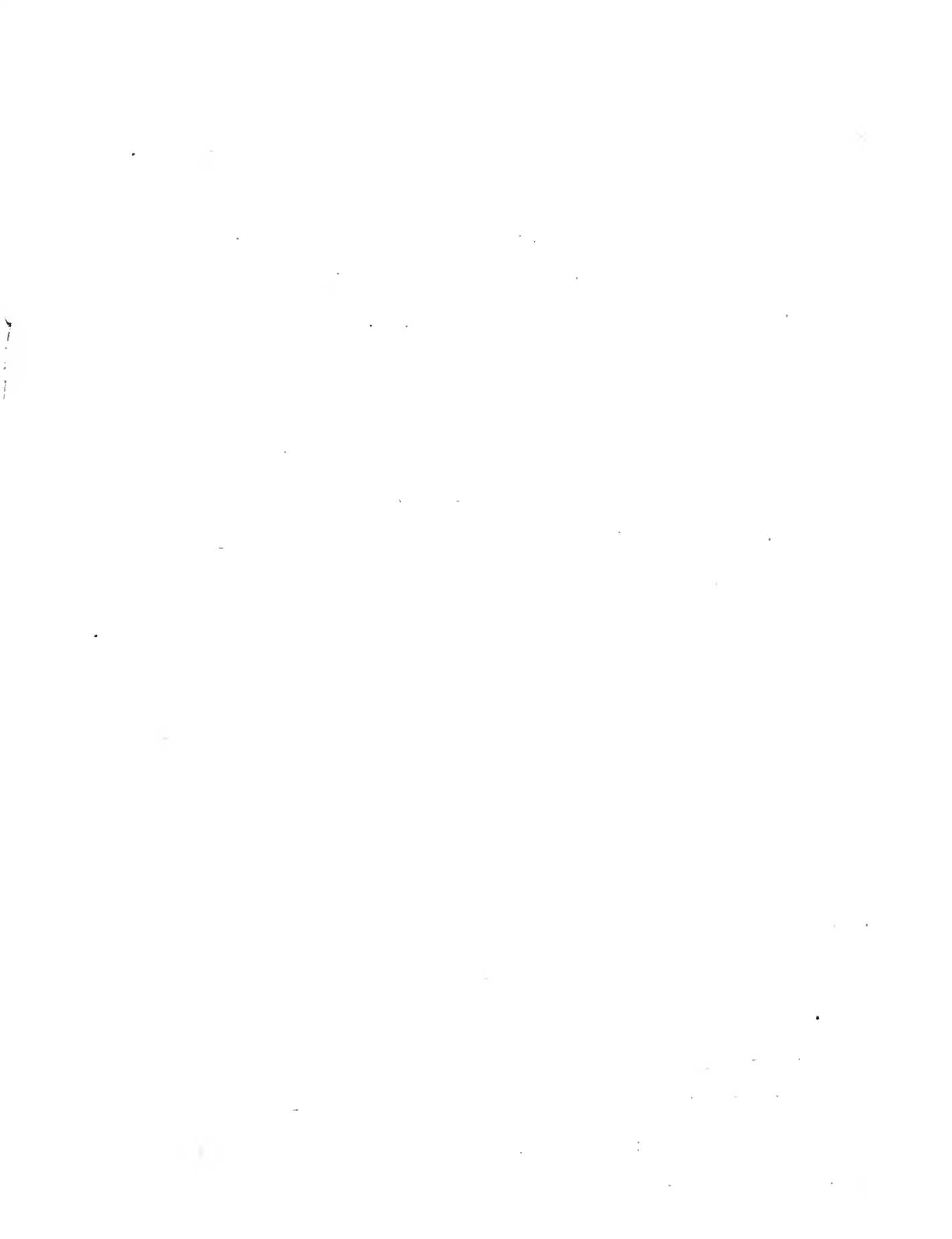
Sixth place is given to the next best hitter and so on down the line.

The pitcher is usually given the last place on the batting list and the catcher next to the last so that the rest of the batting order will not be interfered with when pitchers and catchers are changed. However, this is not always the rule when these men happen to be good hitters and are playing in every game.

Weak hitters and slow men are placed at the bottom of the batting order, but often you may teach a fast man who is a weak hitter to bunt and thereupon put him in second place. Also he may be made into a good waiter.

#### The "Hit-and-Run Play".

In this play the batter gives a signal to the base-runner that he is going to hit the next pitched ball. The runner therefore can be off with the pitch and cover just that much more ground. The runner is not the





only one aided, for the baseman, seeing the runner going, starts to cover his base and leaves an opening in the infield. This gives the batter more of a chance to get a safe hit, especially if he is able to place the ball through the opening. Even if the ball is fielded in the infield, the runner getting such a good start may be able to make two bases instead of one as ordinarily. It is strictly up to the batter to hit the ball on the ground. Otherwise the play fails miserably, many times netting a double play to the defensive.

The batter must exercise judgment as to when to give the signal for the hit-and-run play, that is, he must be reasonably certain that the ball will be over the plate. If he has the pitcher in the hole, i.e. has two or three balls and no strikes, he may feel pretty safe in counting on the next ball being over the plate. There are certain combinations of balls and strikes on which the hit-and-run play is worked well, namely:-

<u>Strikes</u>	<u>Balls</u>
0	2
1	3
2	3
2	2 possibly

The play should not be attempted with three balls and no strikes on the batter, for the pitcher has to throw three strikes in succession, giving the batter an excellent chance for a base-on-balls.

#### The "Squeeze Play".

The supposition here is that there is one out with a man on third. Some may ask immediately, "Why can't this be worked with nobody out?" It can, but why sacrifice a batter for a run when the batter may hit safely or an error may be made by the defensive.



There must be a signal for this play as the runner on third needs to get a start with the pitch. When the signal is given, it is up to the batter to make good and lay down a perfect bunt. The defensive team is playing for just this sort of thing so failure means the loss of a run, as nine times out of ten, if the batter misses, the runner is trapped between third and home. At the signal, the runner must be ready to start as soon as the pitcher winds up to throw. He should not start too soon, however, for too quick a start gives the pitcher an idea of his intention and also a chance to throw the ball wide so that the batter will be unable to reach it. Hence the advantage to the offensive of having the runner on third start as if to go home on each pitched ball and then, recovering, get back to third. When he actually does start he should figure on going home without stopping and should be ready to slide if it seems necessary. The batter MUST do his part. In this play as in the sacrifice the batter must have no thought of himself. He should get the idea out of his head of trying to reach first in safety and should therefore take plenty of time in executing the bunt. He is giving up a possible life on the bases for the sake of a run to his team.

#### The "Double Squeeze".

The "double squeeze" is worked with one out and runners on second and third. The signal is given by the batter and the runner on third starts as in the squeeze play. The runner on second gets as big a lead as possible with the pitcher's wind-up and should be rounding third or thereabouts when the ball is bunted, going home on the throw to first. Care should be taken not to start from third too soon or the player fielding the ball will trap the runner between third and home. But, a



substantial lead from third is necessary or the runner will be thrown out at home on the return throw from first base. The base-runner, when rounding third, should watch the fielder carefully to calculate his intention. Most of the time the fielder will not look in the direction of third base. The runner should take as much of the distance to home as he thinks safe when third base is not guarded. It is not likely that the shortstop will cover third on this play for second base is his place since the second baseman goes over to cover first. If the third baseman comes in, the runner should come with him.

### Stealing.

Speed is not the only essential of good base stealing. It requires a good lead, judgment as to when to go, and a slide at the finish which hooks the bag at the point farthest away from that at which the baseman catches the ball. It is bad policy to steal when the batter is in the "hole". The runner should go when the pitcher is in the "hole" so that the batter may help him out by swinging and confusing the catcher. The runner should take advantage of every slip of the defensive. If the catcher lets the ball get by him only a few feet and the runner has taken the proper lead with the pitcher's throw, he should be off for the next base. "He who hesitates is lost" is never more true than in speaking of a base-runner in baseball.

Many times a fast runner on second base, drawing the catcher's throw to second, may make third easily. Two perfect throws are necessary to catch the fast runner. If runners are on first and second and the runner on first draws the catcher's throw to that base, the runner on second, in case he is awake and a fast man, may take third easily. Then, with



runners on first and third the double steal may be worked and at least the runner on first will make second.

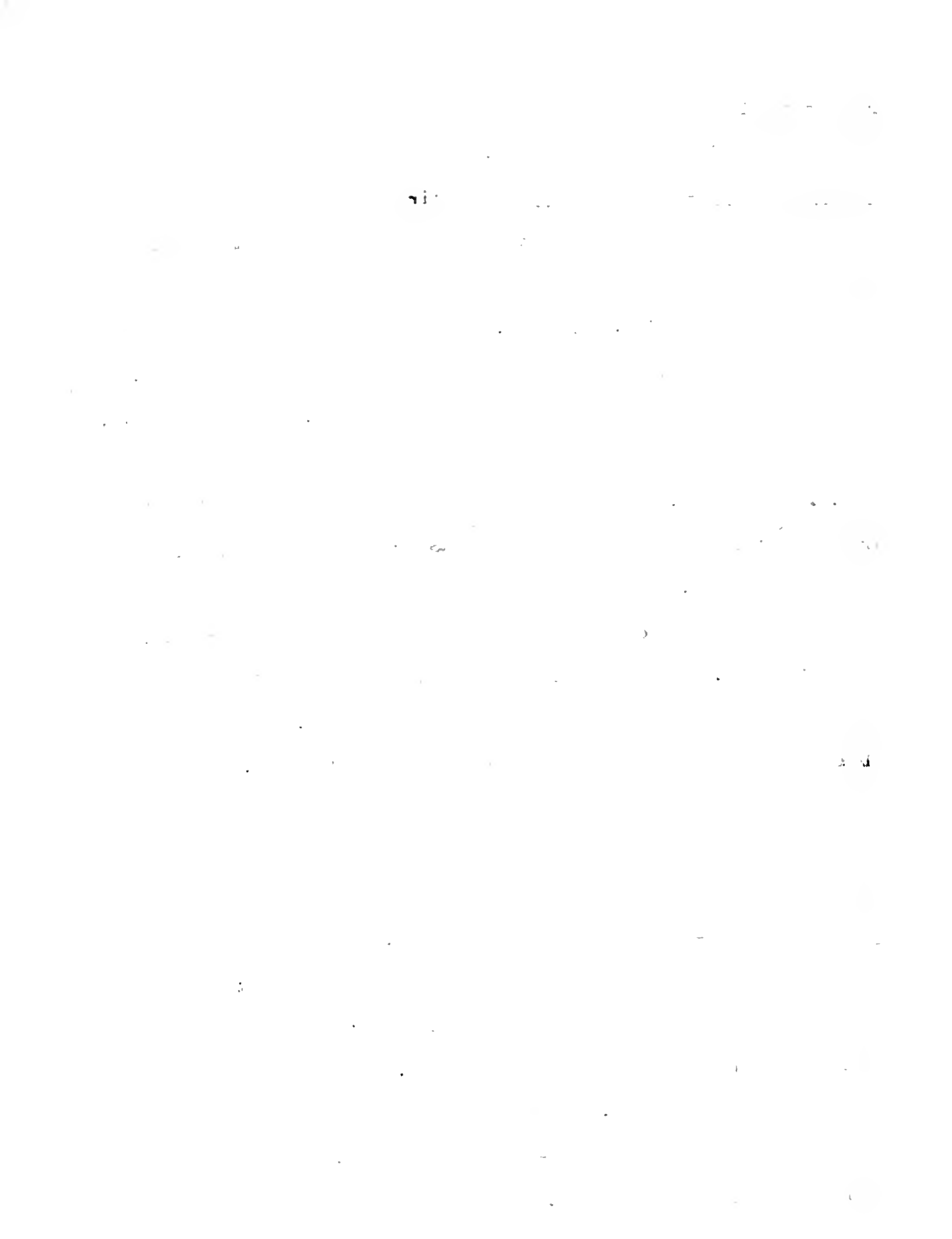
The Double Steal - Runners on first and third.

In high school baseball I have found that very few catchers are sure enough of their throws to attempt to throw the ball to second when this play is being tried. Therefore, I advise with runners on first and third to send the runner on first to second on the first pitched ball. The batter should be instructed to let this ball pass. If over the plate, he should swing at it to confuse the catcher as a strike will be called on him in any event. In professional baseball the double steal is not frequently tried and then usually with two out or the offensive side several runs ahead.

Often the runner on first will loaf to second merely to draw the catcher's throw. In this event, the runner on third must time things just right and make his dash for the plate accordingly. The runner going slowly to second is almost sure to draw the catcher's throw. The effect of loafing is also to get the basemen to throw back and forth for the runner between first and second, giving the third-base runner a better chance to go home.

The Double Steal - Runners on first and second.

This play is very seldom worked successfully but is calculated to have a psychological effect on the catcher, namely, making him hesitate slightly and ponder as to which base to throw. This hesitancy often means that both runners are safe. There must be a signal for this play so that one runner will not run his team-mate off of a base. The signal may be given by either one of the runners or by the batter and should be recognized





### The Delayed Steal.

This play is worked in two different ways, with runners on first and third or first alone. The runner on first starts at the instant the ball leaves the catcher's hands for the pitcher. The pitcher, not expecting such a play, must be called to and turn to throw in a somewhat confused state. The basemen also are not on guard and must collect themselves, start for the base and receive the ball. With a runner on third a very good opportunity is offered to go home as the pitcher throws for second.

The delayed steal is very seldom worked with a runner on second going to third, for the reason that the play is too close to the pitcher.

Third is stolen in a somewhat different way very often. With a runner on second the batter may choke his bat as if to bunt, and, when the third baseman comes in a little to cover the bunt, the runner on second may make a dash for third before the third baseman can cover his base. This should be worked with a signal so that the runner may know what to expect. This play of course cannot be worked on a clever third baseman.

### Signals.

The simpler the set of signals for the high school baseball team the better. These boys are not making a business of baseball and should not be burdened with such a complicated set that they will be confused. As a usual thing the most common movements are the best for signals and are the least expected. Work out your signals from some of the following or similar signs:- bat on shoulder, rubbing the shirt or pants,



picking up dirt, pulling down the cap or pulling up the pants, tapping the plate with the bat, spitting, etc. The batter should not look at the man to whom the signal is given at the instant he gives it, but look immediately afterwards to see if the runner answers it.

Signals may be given in a number of ways:-

1. By the batter to the base-runners.

2. By the coaches on the sidelines to both batter and runners.

In this case the first-base coacher should give it to the runner on third and the third-base coacher to the runner on first.

3. By the coach of the team to the batter and runners directly or through the medium of the baseline coaches.

4. By a mixture, some from the bench and some from the batter.

5. Also by the base-runner as in the case of an outright steal.

The first, second and fifth are the only ones which permit the batter or base-runner to use his own ingenuity and therefore I prefer these although the others are used extensively.

Various combinations have been worked out and as is almost always the case no one can say, " My method is the best and the only one to use". My illustrations will be somewhat of a mixture. In the case of signals the coach of the team has a fine opportunity to allow the boys to use their own initiative, but he should have some recourse in the event that the players make gross errors. Hence he should have a signal to counteract any which the players may have made in error. Thus if he wishes to countermand a signal, he might arise from his sitting position and walk around. It should be strictly understood by all the players that signals



must be repeated after each pitched ball. That is, the pitch takes off the signal.

Catcher to pitcher on thrown balls.

The catcher when in position for giving signals to the pitcher should be sitting on his "haunches", knees spread slightly, glove covering up signals from above. The signals are given by the hands as far back between the legs as possible.

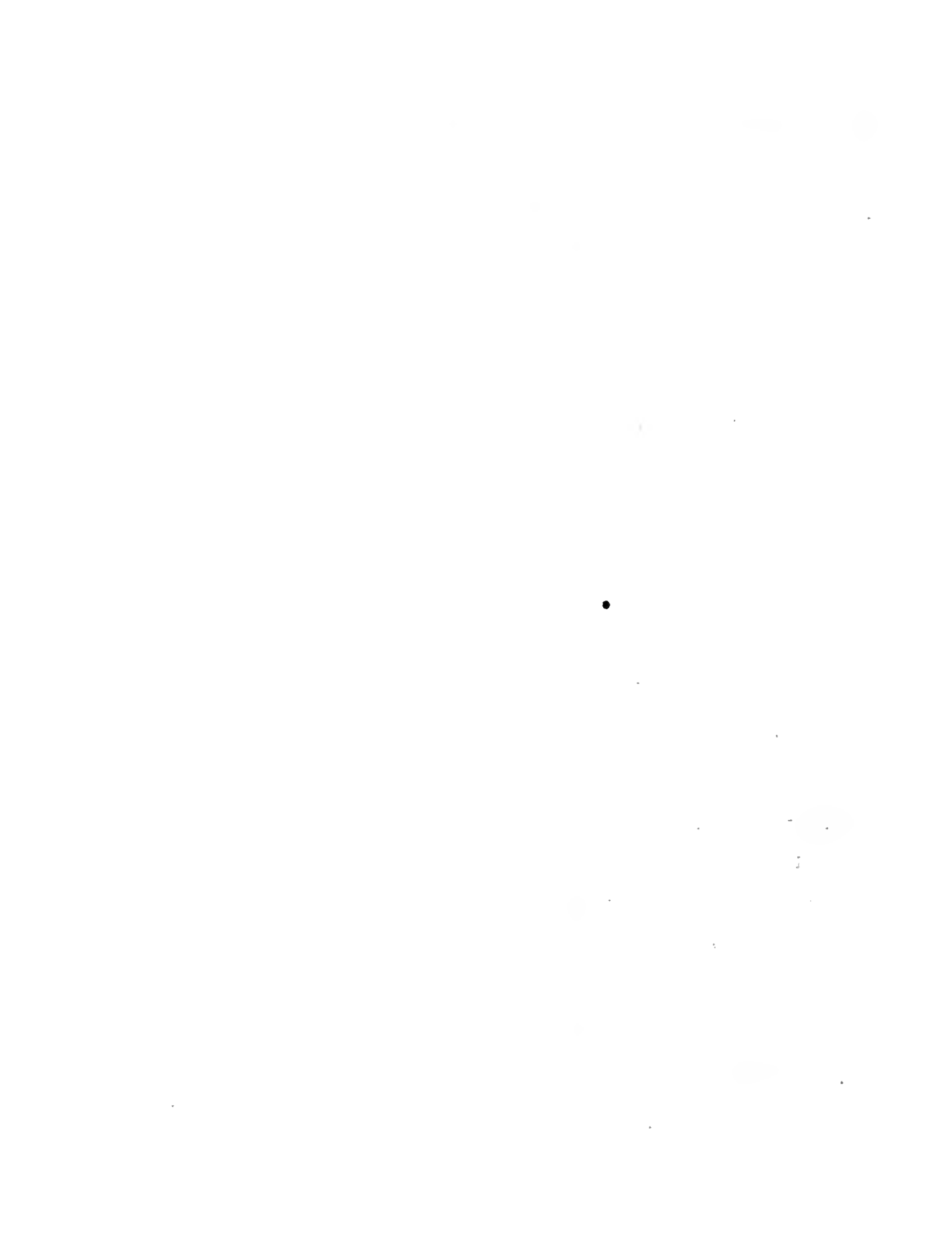
Simple signals should be used such as, one finger for a fast ball, two for a curve, three for a slow ball, four for a waste ball and so on.

The signals should be kept well covered so that only the pitcher, second baseman and shortstop may see. Often coaches on first and third base try to steal signals. Watch for this and "cross them up".

If your team attempts to play such an inside game that it is necessary for the outfielders to know what kind of a ball is going to be thrown, let the shortstop put his hand behind him and hold up his fingers to indicate the pitch.

"Hit-and-Run" signal.

This signal is made by the batter either on his own account or by advice from the coach before he goes to the plate. A simple signal for this play might be touching both bill and back of cap. If the batter changes his mind before the pitch, he should touch the bill only in order to take off the signal, or step out of the batter's box and tie his shoe, etc. Stepping out of the batter's box for any reason is equivalent to taking off the signal. Signals should only be made while in the batter's box, and should be repeated if the batter steps out of the box for any



reason.

The "hit-and-run" signal should also suffice for the "squeeze play", and the "double squeeze play", though the batter must remember that he bunts in this case, instead of swinging at the ball.

A negative signal may also be worked in this connection, but I have found it very difficult to teach players. By a negative signal I mean to have some certain operation performed before each ball is pitched, such as rubbing the hands on the shirt, pants, etc. Then when the player does actually want the play to take place, he does not rub and the signal is considered as "on". This, being negative, is hard to teach but very difficult for the opposition to fathom. The best way to explain it to players is to tell them that they must rub off the signal if they do not wish it to be "on".

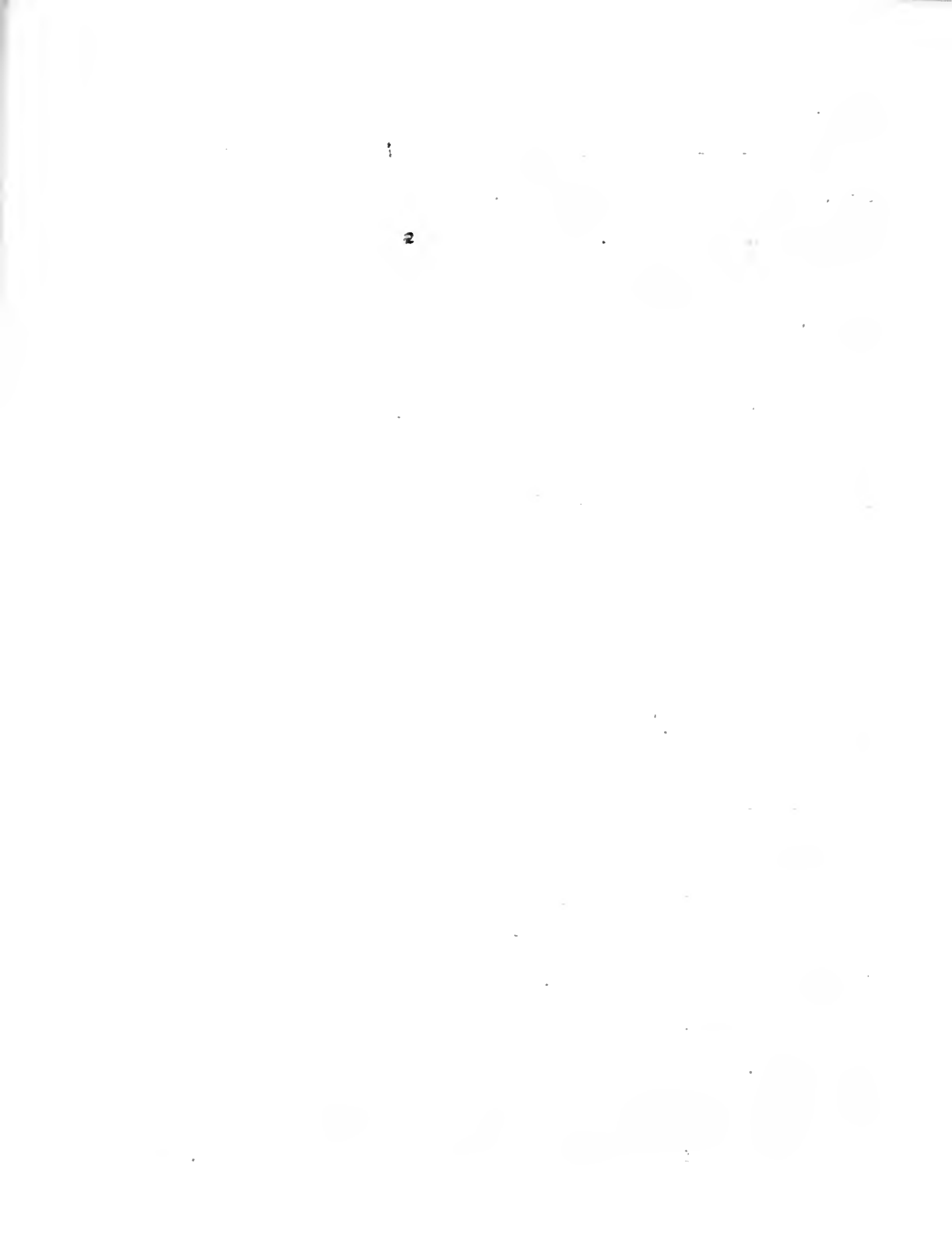
Often it is a good plan for the batter to give a "tip-off" as he steps into the batter's box. That is to say that he gives some signal, recognized by the base-runner, which is a sign that he intends to give the "hit-and-run" signal at some time while he is at bat. The runner will then be on the look out for it.

Signal of the base-runner to the batter that he is going to steal.

Such a signal as this is necessary so that the batter will not hit the ball and spoil the play. The base-runner may rub both hands on his shirt or pants. The answer from the batter may be tapping the plate with his bat.

Signal for a steal, from the bench or by the coach of the team.

This may be given by folding the arms or crossing the knees. Base-





line coaches should take this up and perform the same operation. The same signal may be used for the squeeze play without confusion. Also for the double squeeze. The batter should answer by rubbing his hands on his shirt sleeve. The runner also rubs. The batter must be sure that the runner sees the signal and vice versa.

Signal for the throw to bases.

Pitcher to first base.

Pitchers may or may not find this helpful. I have never instructed players to use it and cannot therefore advise. It is merely a suggestion.

The pitcher should look at the runner very little. He gets the signal from the catcher who is in the squatting position or from the third base man. The catcher may close his fist as a warning to the pitcher and open his hand, spreading the fingers, for the throw. The third baseman may rub his pants with his gloved hand. Both catcher and third baseman should watch the runner intently and try to give the signal when the runner is off balance.

Pitcher to second base.

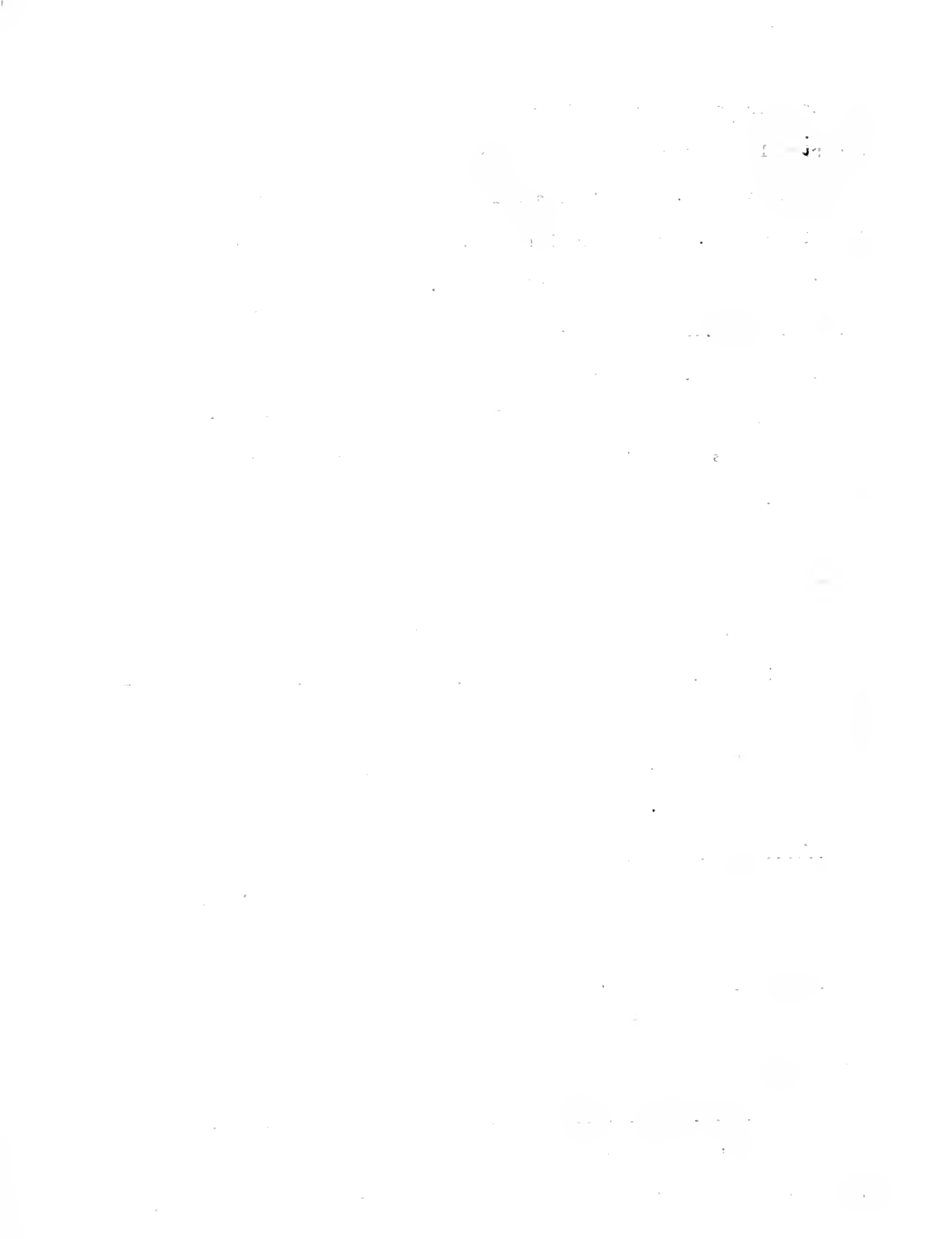
A signal for this play is discussed under the heading, Pitcher's throw to second, page 71.

Pitcher to third base.

The pitcher wipes his gloved hand on his shirt front and the third baseman answers by the same sign, or vice versa.

Catcher to first base with runners on first and second and two out.

The first baseman rubs his shirt front (letters) and the catcher answers by the same sign or rubs his breast over his chest protector.



Catcher to the second baseman or to shortstop to catch runner off the base.

This signal may be the same as for the throw to first base.  
Catcher to the second baseman covering first on an expected bunt with a runner on first and nobody out.

The second baseman may kick up dirt with his foot. The catcher answers by the same sign, and the pitcher throws a waste ball.

Shortstop covering third base on an expected "squeeze play".

This signal may be the same as the one used for the play immediately preceding this, that is, to first base.

If any player on the defensive team has caught a signal, he should immediately signal to the catcher by calling his name and afterwards some expression such as "Heads Up"; next he should give to the catcher his own team signal for the expected play of the opposition. The catcher may then play accordingly. The catcher must be wide awake at all times to catch the signals of the opposition. He is in the best position to do this as well as to give orders that will counteract the expected play.

Coachers on the sidelines.

Some authorities on baseball have said that players rely too much on the baseline coachers for advice when running the bases. That may be true in professional baseball, but quite the reverse may be said of amateur baseball. Too little emphasis, I believe, is placed on the work of the baseline coacher in ordinary high school baseball.

It is important that boys be trained for this position as well as any other. Here is a valuable opportunity to work the second-rater, the player who is not quite good enough mechanically to make the regular team.



He may have brains though, and if he has, here is a good chance to put brains to use. Coaches should attempt to develop two men for baseline coaching on whom they can depend throughout the season, boys who will watch the game carefully and follow instructions, boys who will look to the bench for orders when it is necessary and are wide awake to send the runner on at an opening. Good judgment may be developed in these men and it is a valuable thing to have the same men on the coaching lines all season. The regular players have enough to do and need any rest they can get. Above all pitchers and catchers should never be allowed on the coaching lines when they are playing. They have the hardest work to do and need the rest.

On most high school teams the coach of the team has to mention the fact **every** inning that there is no one on the coaching lines and then send the last previous hitter to that position. Hence the necessity for having this provided for before the play begins.

Baseline coaches in general should keep excellent track of the game, as to the number of outs, where the ball is, etc. They should know the ability of each player. For example, one runner could stretch a single into a double, or a double into a three-bagger, etc. while another would not be able to. The good base-runner of course would make the best coach for he knows how to calculate the speed of the runner as well as that of the ball. Baseline coaches must be alive to all the inside workings of the team. A "dub" should never be sent to the coaching lines unless you want something disastrous to happen. Furthermore, the coacher must have plenty of ginger and keep the runners awake all the time. Lots of ginger doesn't mean lots of noise - there is a distinction. The man on the

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coaching lines may be running back and forth, waving his arms and jumping around at a great rate trying to rattle the opposing pitcher, but paying very little attention to the runner. Avoid putting this type of player on the coaching lines. The coacher should be able to size up what the opposing pitcher and catcher are planning to do, must know when to take chances and when to play things safe, etc.

First base coaching. A few points to be considered.

1. Hold up the runner who has hit a foul ball. The coacher should get as close to the line as possible, hold up both hands and shout, "Hold UP".
2. When the runner is rounding first base on a hit, the coacher should instruct the runner to play it safe or take a turn or make a start. He may also waive him on by a swinging motion of the arm calling "Take second" or "Take third" as the case may be.
3. Watch pitchers closely for deceptive balk motions.
4. Watch the second baseman with a runner on second.

Third base coaching. A few points to be considered.

1. Advise the runner by signs whether to slide or stand up when he is coming into third. The hands should be raised above the head as a sign to come in standing up or down toward the ground when meaning to slide.
2. Waive the runner on by a swinging motion toward home and call to him whether or not to slide at the plate.
3. With a runner on second, the third-base coacher must watch the shortstop closely for a throw to second and advise the runner accordingly. The runner should watch the pitcher.





### SPRING TRAINING.

At the start you, as coach, should hold a conference with the captain and possibly the older players. Talk things over and organize your plan of campaign for the coming season. Your plan of campaign will depend upon the size of the school, whether or not you are on your first year of coaching, and the new material available. It would be well to hold a rally. Have several speakers who can arouse enthusiasm and whose word has weight with the boys. Any notable baseball player can usually give the boys some good advice at the start of the season. The captain should make a short talk appealing to the boys to come out for the team, work hard, etc. for the good of the school. You should tell them of your ideas regarding the coming season and get the names and experience of all candidates for the team, keeping a card index. This should especially be done if you are new in the school or if there is a lot of new material for the team. Appoint a day for the first practice and instruct the players as to the hours of practice and the days, if not every day.

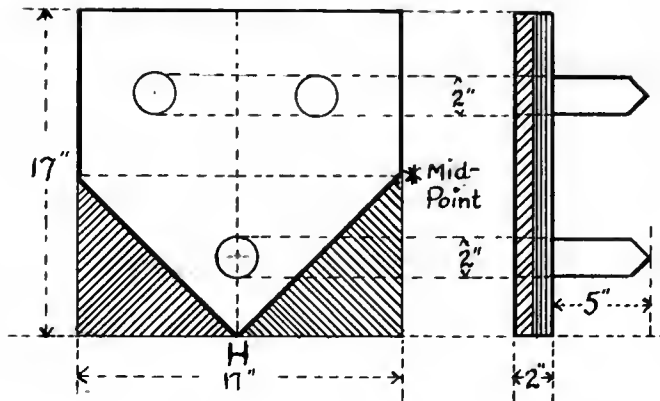
Very often the grounds are in poor condition and will have to be fixed up or a new diamond laid out. If the funds in the athletic association are not sufficient, appoint a day for the fixing up of the grounds and request the boys to bring rakes, shovels, hoes, etc. In the case of the laying out of a new diamond, I will offer a few suggestions as to the method.

1. Select the facing of the diamond and the position of the home plate. The first base line should run due west or due north if possible. This is done to avoid the sun getting into the eyes of the fielders. Level



off the infield, water, rake and roll it. Cut the outfield grass if there is any.

2. If there is no home plate, a very inexpensive, substantial one can be made by putting together two pieces of one inch plank 17 inches square as per the accompanying diagram. The grain of one should run across the grain of the other to prevent warping.



All measuring from Point "H".

Cut off the shaded portions.

Dig up the earth so that home plate will be flush with the ground.

Bases may be made by covering sacks of sawdust 15 inches square and 2 inches thick with canvas sewed heavily on each side.

3. Having decided on the direction of first base, sight approximately to the center of the diamond and set a center stake  $63' 7\frac{11}{16}"$  from home plate. From home plate as a center describe an arc of ninety feet in the approximate vicinity of first base and make first base a fixed point by cutting this arc with another having the central point of the diamond as a center and a radius of  $63' 7\frac{11}{16}"$ . Drive a stake at the point where first base will be.

4. Perform exactly the same operation on the other side of the diamond and set third base definitely.



5. From the central point of the diamond as a center describe an arc of radius  $63' 7\frac{11}{16}"$  in the vicinity of second and cut it by an arc of ninety feet from first or third as a center. Now your points have been established and you should check the various measurements to see that they are correct.

6. Standing on home plate sight to second base and lay out the pitcher's plate on a direct line between these two points at a distance of 60 feet 6 inches from home plate to the nearest edge of the pitcher's plate.

7. Remember in placing first and third that the bases must be wholly within the ninety foot square but that in the case of second, the center of the base is over the stake.

#### The schedule.

Preliminary to the start of the season, whoever is in charge of the schedule, usually the coach, should have it arranged so that it may be announced to the boys. They like to know what games are to be played and if possible this schedule should be posted where it will be easily accessible to all.

In baseball, as opposed to football, there is very little to be feared in the way of too many games. Two or three games spread over a week is about the best arrangement especially at the beginning of the season for practice. A day between games will give a team a chance to correct their faults as far as possible and to see where they are weak, as well as to practice on something new. I would advise at least ten full days of practice before playing any games, for the soreness must be worked

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both primary and secondary data collection techniques. The primary data was gathered through direct observation and interviews, while secondary data was obtained from existing reports and databases.

The third section details the statistical analysis performed on the collected data. It describes the use of descriptive statistics to summarize the data and inferential statistics to test hypotheses. The results of these analyses are presented in a clear and concise manner, highlighting the key findings of the study.

Finally, the document concludes with a summary of the findings and their implications. It discusses the limitations of the study and suggests areas for future research. The author expresses confidence in the reliability of the data and the validity of the conclusions drawn.

out of the muscles, throwing arms must get into shape, and batting eyes must be regained after a rest of several months. There is nothing like actual competition in baseball to develop players. I would rather sacrifice certain inside features of the game to actual play, for in the latter, situations arise and must be solved, and the more situations arising which call for quick thinking, the better. A team is always steadier in a league game if it has had the advantage of a full schedule of practice games. One can always pick out the team playing its first practice game. The players are nervous and don't exactly know what to do, etc. Therefore give your boys plenty of competition even at the expense of some individual practice work.

#### Organization on the field.

If the coach has had the same team to work with in previous years, things will be much easier. In such cases you should organize the players of previous years and instruct them in your plan. Each older player should have a group of younger players to instruct for the first few days. Bring out only the rudiments in the first few days of practice. A squad of say twenty boys is rather easy to work with, but when it approaches forty, things begin to take on a different aspect, and care must be taken that each individual gets the proper sort of instruction.

Pitchers and catchers should work together - one pitcher for each catcher. Infielders should work in one group, outfielders in another.

Let me offer another suggestion in the way of a program for the first four days of practice. First, instruct the players about their throwing arms. Allow no "cutting loose" for ten days. The pitchers should only be worked three innings apiece in the first practice games, and





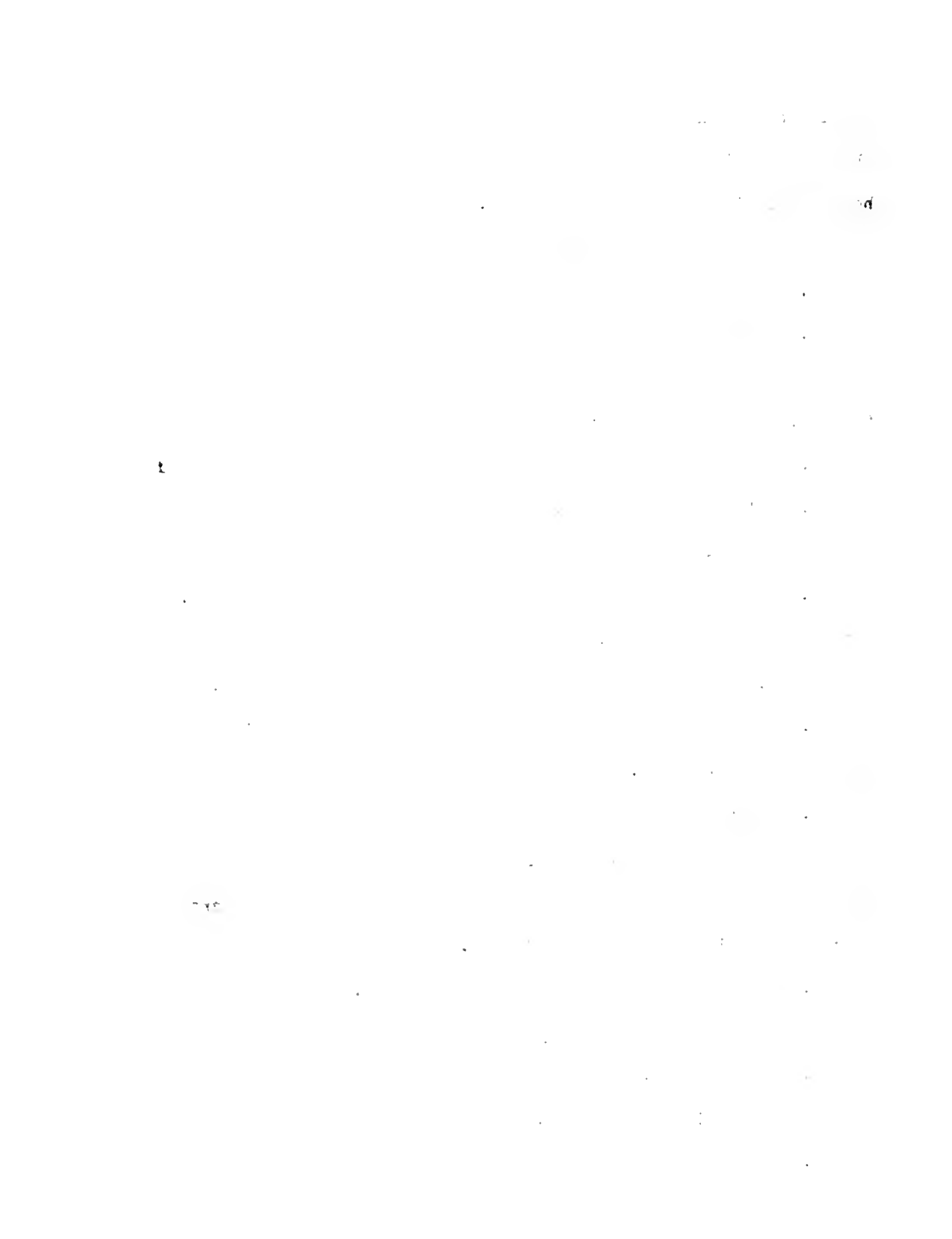
should not be allowed to pitch a full game for at least three weeks if they are not in excellent condition and have had considerable throwing before the first practice was called.

#### First Day.

1. Run twice around the field to get warmed up.
2. Practice throwing in pairs for thirty minutes. This may be varied by rolling the ball on the ground to one another or the "high-low game", that is, looking high and throwing low and vice versa.
3. Inspect the squad correcting faults. See that players are dressed warmly. Don't allow bare arms. Players should wear undershirts under their baseball shirts. Sweaters for the pitchers are desirable.
4. Pay particular attention to the throwing of the pitchers. Show catchers the proper throw. Infielders should practice throwing easy at all angles, outfielders only overhand. Allow no hard throwing.
5. Call the squad together and instruct the players in the methods of bunting and batting.
6. Divide the squad into groups of from five to eight and have the players practice bunting. The player at bat bunts five, runs out the last one thirty feet and alternates with the other players in his group. This should be continued for thirty minutes.
7. Squad runs twice around the field and in.

#### Second Day.

1. Run as before.
2. Thirty minutes throwing.
3. Fifteen minutes hitting, fifteen minutes bunting.



4. Select a team to put in the field and give it five minutes practice. Give the outfielders except on the team fifteen minutes in catching fly balls. The rest of the boys remain at bat hitting one and running it out. Keep the pitchers throwing easily. Work all the boys at bat and in the field alternately for thirty minutes.

5. Basemen should be instructed at this time about playing their positions.

6. If there is lots of new material, instruct the boys of the previous year to hit by themselves in another part of the field.

7. Run the boys twice around the bases after giving instructions as to the method of making the circuit. Dismissed.

#### Third Day.

1. Run as before.

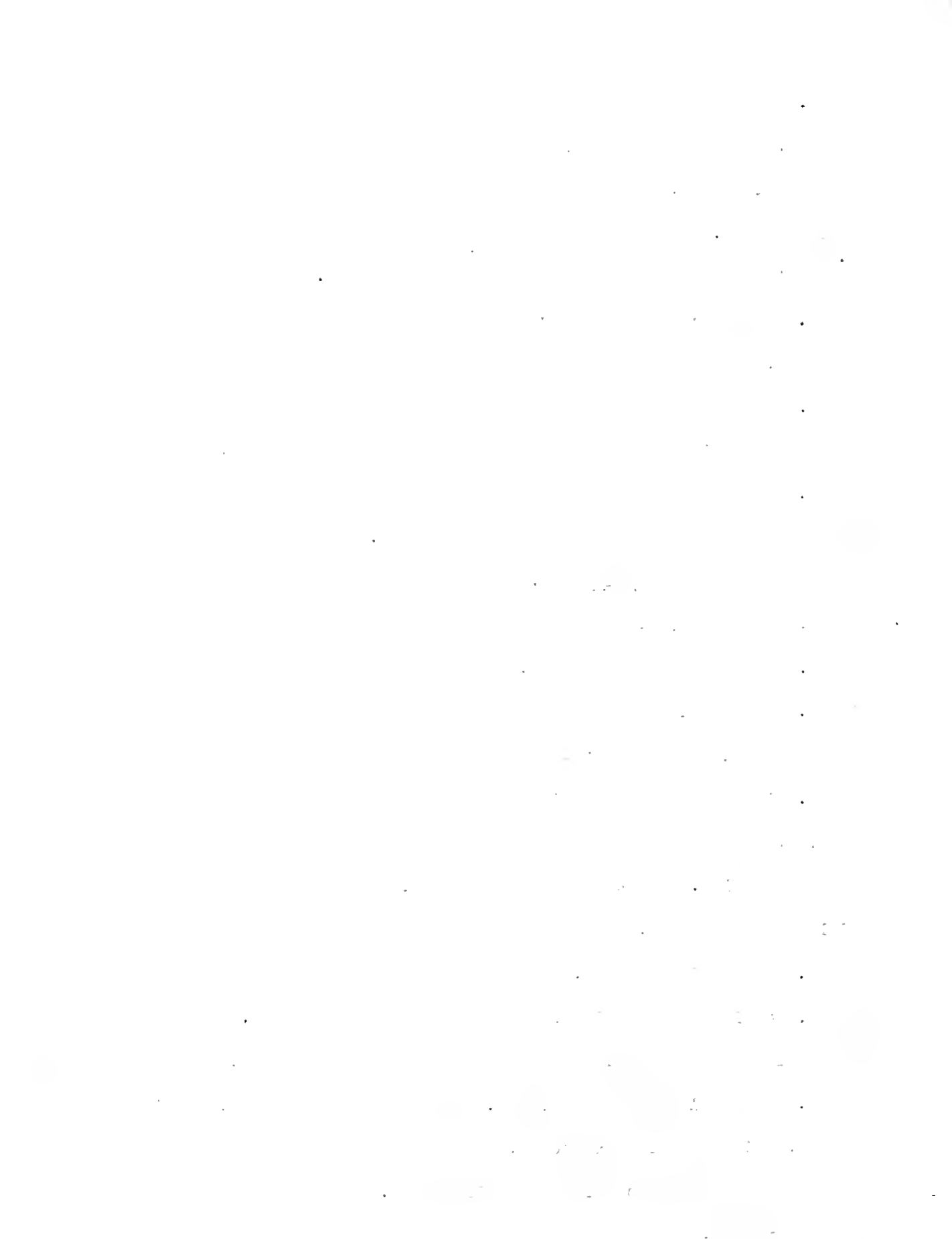
2. Fifteen minutes throwing.

3. Fifteen minutes hitting; about five to eight in a group according to the size of the squad.

4. Pick out a team and give them ten minutes infield and outfield practice. The rest of the players may be placed at bunting or hitting during this time. If there is a sliding pit, instruct a group in sliding and let them practice.

5. Select nine batters. Keep them at bat until they have hit three apiece, working your previously selected team in the field. These boys should play as in a regular game, holding the bases if safe, sacrificing, etc.

6. Change players in the field, putting them at sliding, bunting or hitting. Bring the players who have been sliding and bunting to bat. Send boys who have been at bat into the field, etc. Rotate until each group has been the rounds.



7. Infielders should be taught the method of running a man down when caught between the bases.

8. Twice around the bases watching form, then dismissed.

#### Fourth Day.

1. Run as before.

2. Fifteen minutes throwing.

3. By this time the coach will have some line on his players, so that teams may be picked temporarily, first, second, third, fourth and so on. One team may be placed in the field, one at bat, one sliding, one hitting, one bunting, outfield practice, etc. The teams should be alternated as the coach sees fit.

4. Instruct all the players as to the signals you are going to use.

5. Practice team play both in the field and at bat. Sacrifice, hit-and-run, squeeze play, double steal, etc. should be used and tried with each team giving the signals.

6. Give your men plenty of practice in hitting. Instruct them to get hitting practice whenever they have nothing else to do.

After the first week, select a tentative team and work them together in infield and outfield practice. Make the boys understand that this selection is by no means final, and that from this time on players will be changed according to ability. Hold a short practice game among the players and give everybody a chance. The best way to judge a player is in actual competition. In these practice games among the players it saves time to work one team at bat for three consecutive innings.

Try to develop more than one pitcher and one catcher. Don't depend



too much on one player for any position, that is, if it is at all possible to do otherwise. Play your doubtful players most at the beginning of each season. Give out the team uniforms from three days to a week before the first league game is played.

#### OBSCURE POINTS IN THE RULES.

Every player should be instructed to study the rule book carefully. Most players very seldom read the rules and consequently are apt to miss fine points now and then, possibly only once or twice in a season, but nevertheless miss them. It is important that only the most obscure rules be known so that in a pinch the player will know what to do. The coach of the team especially must be posted and know just how every rule should be interpreted. The boys will look to the coach for the correct interpretation of every questionable decision and, if he does not know absolutely or have a ready answer, he will fall in their estimation. I have found old and capable baseball players and coaches who are wrong in certain of their ideas about rules.

#### Balks.

When the pitcher delays the game with a runner on base, the umpire should call a balk as well as a ball. All base-runners advance one base on BALKS whether scoring a run or not. The batter is not a baserunner.

It is a balk when the catcher is out of the lines defining his position, if the pitcher is delivering the ball.

If in the act of delivering the ball to the plate it slips out of the pitcher's hands, it is a ball with nobody on base or both a ball and





a balk with a runner or runners on the bases.

It is a balk if the pitcher feints to throw to first while in his box and does not complete the throw.

Called Games.

Games called in the middle of the inning cause the score to revert to that of the last complete inning.

When the batter is out.

1. On dropped third strike with runner on first and less than two outs.
2. Stepping from one batter's box to another while the pitcher is delivering the ball. Delivery starts from the instant of winding up.
3. On the third strike for attempting to hinder the catcher from throwing or for running outside the three foot line to first base.
4. On an infield fly with less than two outs and runners on first and second or first, second and third. This is very important as it frequently happens and is so often misinterpreted.
5. For interference with the catcher making a throw to any base. The batter is not out if the throw retires the runner.

Runners entitled to bases.

1. Suppose a case which frequently happens. A runner on third has started for home on the pitcher's wind-up and the catcher steps in front of the plate, catches the ball and tags the runner. The runner is safe on a Balk. The batter gets his base on INTERFERENCE the same as if the catcher held his bat.
2. If a batted ball hits the umpire, the batter is entitled to first base, but no other runners advance unless they are forced around. No runs



may be scored on this play unless the bases are full.

3. A base-runner is entitled to his base if blocked by a player not in possession of the ball.

4. The base-runner is entitled to three bases if a batted ball is stopped by throwing a glove, cap, etc. at it. He is entitled to two bases if a thrown ball is stopped in this manner.

5. If a pitched or thrown ball hits the umpire, runners are entitled to all the bases they can make.

#### When base-runners are out.

1. If the runner fail to avoid a player fielding the ball. The fielder must be given the right-of-way by runners, baseline coaches, and players on the bench.

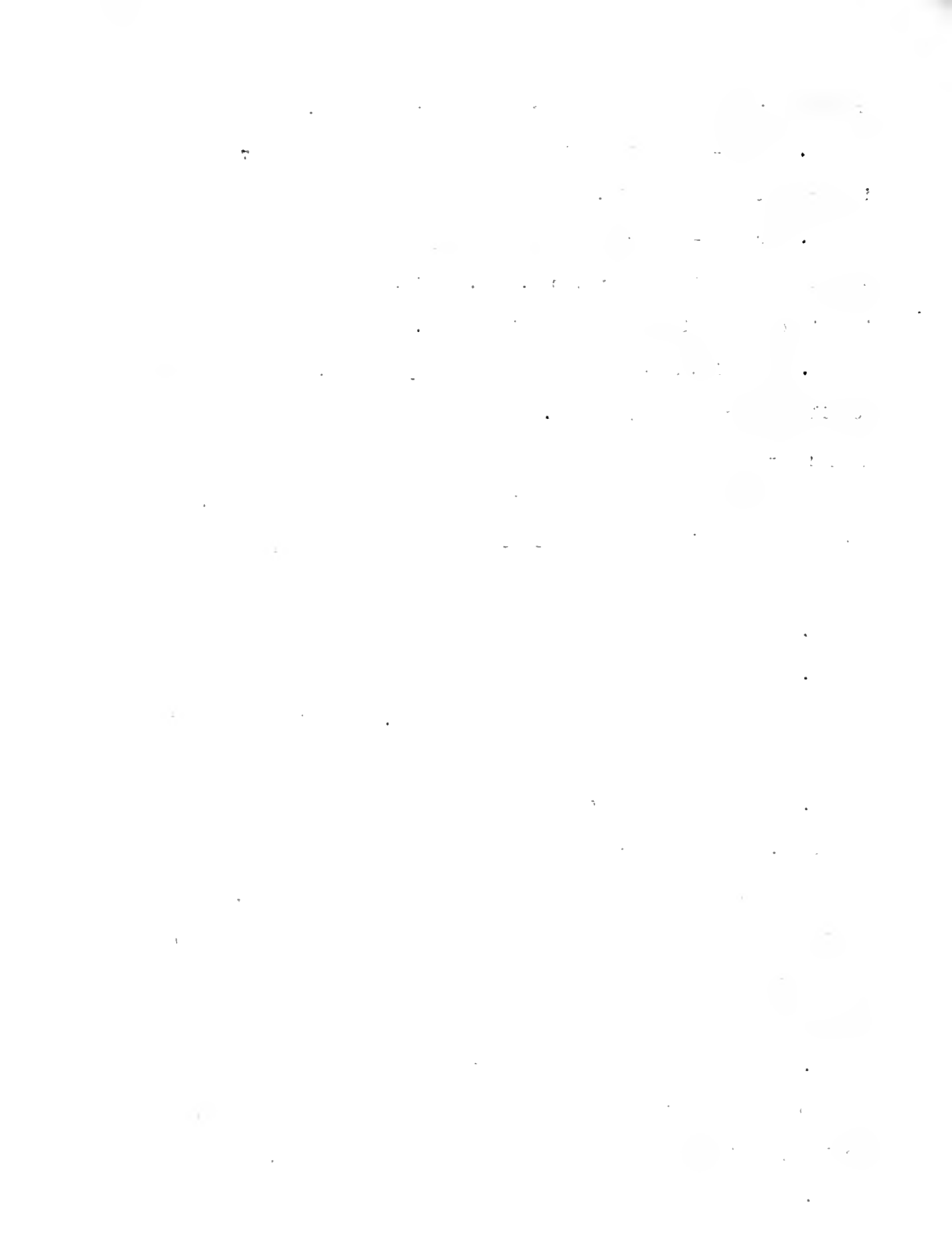
2. If the sideline coaches touch the runner.

3. The team in the field must call the attention of the umpire to the fact that a runner has not touched a base. Otherwise, the umpire does not render a decision.

4. If a batted ball hits the runner before it touches the person of a fielder. This rule has no effect after the ball has once been touched by a fielder. Thrown balls hitting runners count for naught, except in the case where a runner intentionally throw up his arm to stop a ball being thrown back and forth by fielders when the runner is caught between bases.

5. If the baseline coacher on third base runs toward home. In other words this is a deliberate attempt on the part of the baseline coacher to deceive the pitcher or whoever has the ball at that time.

6. With two out in the last half of the ninth inning and one run



needed to win, a single is not recorded unless the batter touches first, a two-base hit unless the batter touches first and second, and a three-base hit unless all bases are touched. That is to say that, if a runner were on second base with two out and the batter hit the ball for a home run but failed to touch first, the run would not count.

This is a somewhat similar situation to that famous play in that historic game between New York and Chicago on September 23, 1908, when Merkle forgot to touch second base.



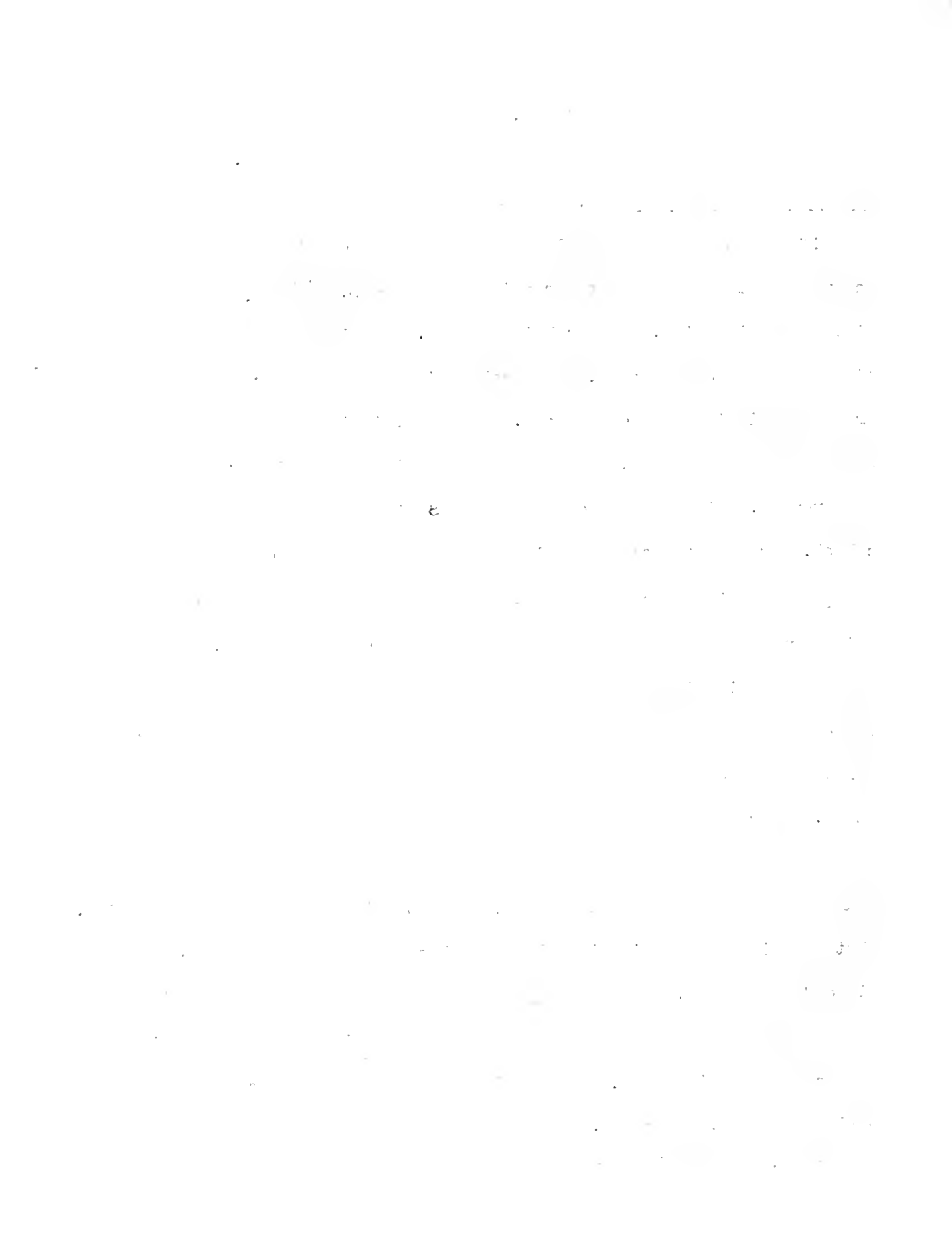
## Part III.

## BASEBALL AS AN INTEGRAL PART OF HIGH SCHOOL ACTIVITY.

THE PROBLEM OF GROUND SPACE.

If we are to make baseball an integral part of high school activity, we must get large numbers of boys into the game under the proper supervision and direction. This much is assured. Immediately then the problem of play space confronts us, for baseball is a game which requires a large area for a limited number of boys. Of course, if it were possible to play at all hours of the day, from eight o'clock in the morning until six in the evening, this problem would not be a serious one for the average school, for the boys could be divided into groups and come for practice and games at all hours of the day. The situation, however, is not one of this sort. The time devoted to athletics is after-school time, that is, from four until six or at best from three until six. What then? How are we to accommodate two or three hundred boys on a single baseball diamond? It cannot be done unless a team plays only one or two games per month. In order to get any great good from the playing of baseball, a team should play at least two games per week. Boys playing baseball less than this amount not only lose interest but ability from lack of practice. What then is the solution in a large high school having but one baseball diamond? Off hand, we should say either acquire more space or divide the groups in such a manner that baseball may be intensive in certain groups for a period of weeks. Then let another group hold sway for a period of weeks, and so on.

In order that we may have some accurate figures on which to base our





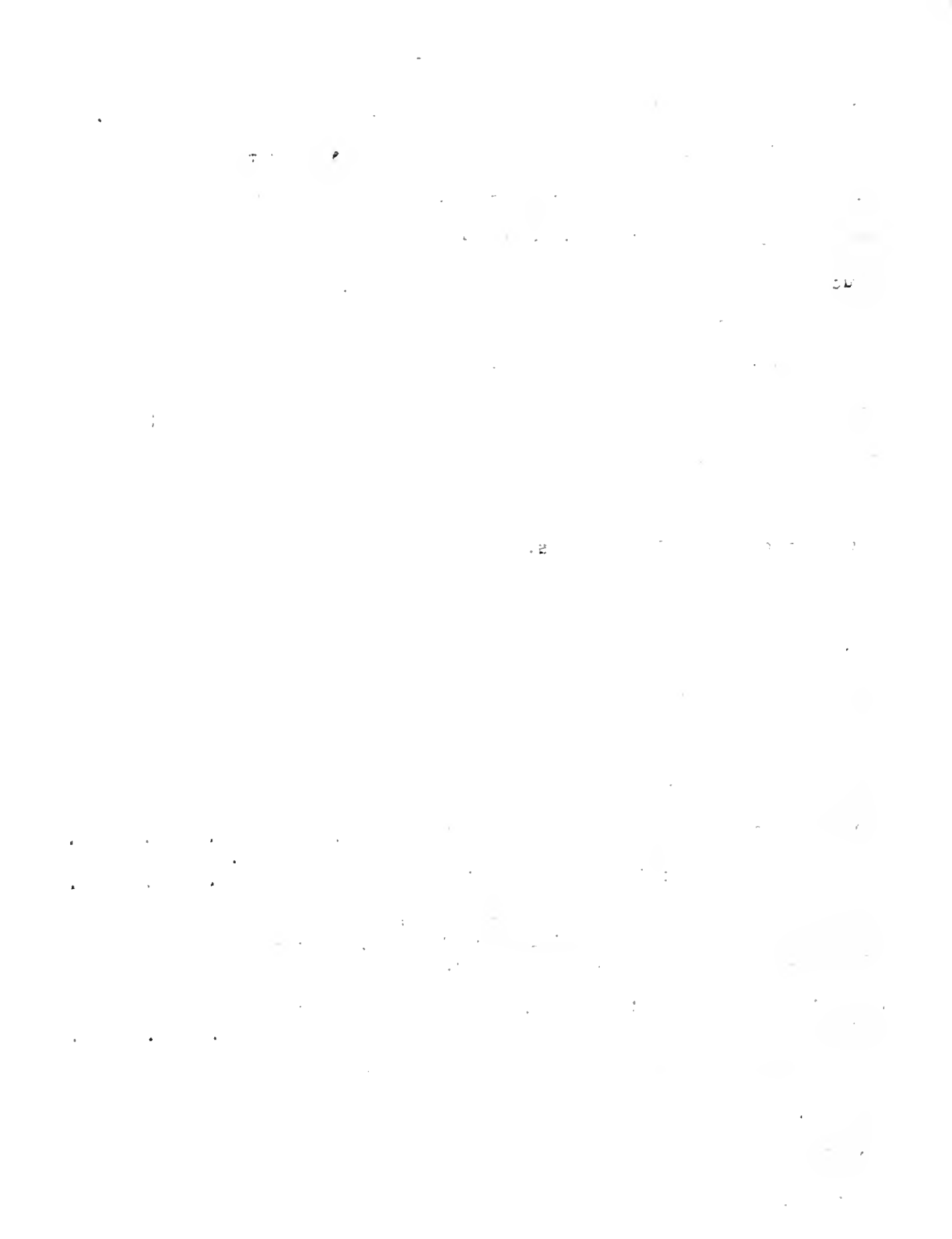
judgment of what is being done in high schools, and of offering remedies for the situation, I show a table on the next page indicating various elements besides the one of ground space. The data for this table were collected from a questionnaire sent out by the Department of Physical Education for Men at the University of California.

I have selected a representative group of schools in each of the three divisions. Selections were made from some 164 schools replying to the questionnaire and in all cases all parts of the state (California) were represented.

The statistics below have been worked out from the data gathered and shown on the following pages.

	LARGE	MEDIUM	SMALL <sup>†</sup>
	SIZED		
Total number of boys enrolled	9465	2812	1035
Total number engaging in intramural baseball	734	595	122
Total number trying for school competition teams	499	370	232
Total size of play space available (in baseball fields)	23	28	46
Percentage of boys playing baseball for the sake of the game	7.8	21.2	11.8
Percentage of boys trying for competition teams	5.3	13.2	22.4
Number of boys who could be accommodated on the fields twice each week - 1 game per field per afternoon, 18 boys to the field per afternoon, 6 afternoons, 54 boys per week	1242	1512	2484
Percentage of enrollment that could be accommodated twice per week	13.1	53.8	240.0

In the case of the small schools, each school could have 80% of its boys playing baseball every afternoon in the week; or each team in school (providing all the boys played on some team) could play four and sometimes five games per week.



## THE PROBLEM OF GROUND SPACE FOR BASEBALL.

LARGE SCHOOLS - 300 BOYS AND UP.

Number of Boys	Number in Intra-mural Baseball	Coaching by Faculty Men	Special Athletic Coaches	Size of Athletic Field	Is Field Adequate? Yes or No	No. of boys trying for Competition Team
300	40	Yes	No	4½ Acres	Yes	30
750	75	Yes	No -one man	S.F. Stadium	No-too far away	25
401	25	\$500 for all athletics		5½ Acres	Yes	25
1260	Indoor only	Yes	Yes	300'x 400'	No	51
421	48	Yes but not extra pay		100'x 150' 100'x 200' Plus play-ground	Fairly	25
402	36	Phy. Dir. aided by Faculty man		225'x 370'	Yes	25
720	75	Ditto		300'x 330'	No	40
781	50	Phy. Dir. does all		No field	No	25
307	none	Ditto		90' x 150'	No	38
890	60	Phy. Dir.	Yes	400'x 500'	Yes	90
650	275	Phy. Dir. aided by Faculty man		½ Block	No	20
599	?	Phy. Dir.		280'x 520'	Yes	25
782	50	Phy. Dir.		Field in a ¼ Mile Track	Yes	25



## THE PROBLEM OF GROUND SPACE FOR BASEBALL.

LARGE SCHOOLS - 300 BOYS AND UP (Continued).

Number of Boys	Number in Intramural Baseball	Coaching by Faculty Men	Special Athletic Coaches	Size of Athletic Field	Is Field Adequate? Yes or No	No. of Boys Trying for Competition Team
770	none	Phy. Dir.		400'x 480'	No	35
432	Not in outdoor baseball		Yes one for all	None	No	20

MEDIUM SIZED HIGH SCHOOLS - 150 to 250 BOYS.

150	35	No	One for all	7 Acres	Yes	25
170	35	Yes, but not extra pay		2 Acres	Yes	35
155	50	Yes		5 Acres	Yes	50
144	20	Yes	Yes	225' x 240'	No	20
143	None	Yes		400'x 450'	Yes	20
185	20	Yes		250'x 400'	Yes	20
210	35	Phy. Dir. does all coaching		None	No	18
212	None	Phy. Dir. paid extra		3 Acres	Yes	30
255	35	Phy. Dir. aided by Faculty man		325'x 600'	Yes	27
289	250	Ditto		5 Acres	Yes	25
159	40		Captains coach teams	1 City Block	About	20

012

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy auditing of the accounts.

Furthermore, it is noted that regular reconciliation of the books is essential to identify any discrepancies early on. This process involves comparing the internal records with bank statements and other external sources to ensure they match.

In addition, the document highlights the need for clear communication between all parties involved in the business. This includes providing timely updates to stakeholders and addressing any concerns or questions promptly.

The second section of the document focuses on the financial aspects of the business. It details the various sources of revenue and the associated costs. By analyzing these figures, the business can determine its profitability and identify areas where costs can be reduced.

It is also mentioned that the business should maintain a healthy cash flow. This can be achieved by managing receivables and payables effectively. Ensuring that bills are paid on time and that customers pay their invoices is crucial for the long-term success of the organization.

Finally, the document stresses the importance of budgeting. A well-defined budget provides a clear roadmap for the business and helps in making informed decisions about resource allocation.

The third part of the document addresses the legal and regulatory requirements that the business must comply with. This includes understanding the relevant tax laws and ensuring that all filings are completed accurately and on time.

Additionally, it is advised that the business should consult with legal counsel to ensure that all contracts and agreements are properly drafted and enforceable. This helps in minimizing the risk of legal disputes and protects the interests of the business.

In conclusion, the document provides a comprehensive overview of the key areas that a business owner should focus on to ensure the success and sustainability of their organization. By following these guidelines, the business can operate more efficiently and effectively.

## THE PROBLEM OF GROUND SPACE FOR BASEBALL.

MEDIUM SIZED HIGH SCHOOLS - 150 to 250 BOYS (Continued)

Number of Boys	Number in Intramural Baseball	Coaching by Faculty Men	Special Athletic Coaches	Size of Athletic Field	Is Field Adequate? Yes or No	No. of Boys Trying for Comp. Team
200	?	Phy. Dir. aided by Faculty men		360' x 610'	Yes	15
226	?	Yes		1½ Acres	No	15
149	40 Interclass	Yes		Use City Park	Yes	20
165	35	Yes		300' x 400'	No	30

SMALL SCHOOLS - 25 to 125 BOYS.

120	None	Yes-\$100 extra		¼ Mile Track	Yes	20
69	WE HAVE NO SYSTEMATIC		PHYSICAL	TRAINING		
67	None	Yes-\$100 extra	No	10 Acres	Yes	28
100	None	Faculty man specially paid		One Block	Yes	20
22	None	Yes-without extra pay		9 Acres	Yes	20
36	18	Ditto		16½ Acres	Yes	18
102	None	Faculty man part time		Rented	No	?
51	None	Extra pay		4 Acres	Yes	?
70	None in Baseball	Yes		¼ Mile Track Football Field	Yes	20 plus
97	None in Baseball	Extra pay		9½ Acres	Yes	20

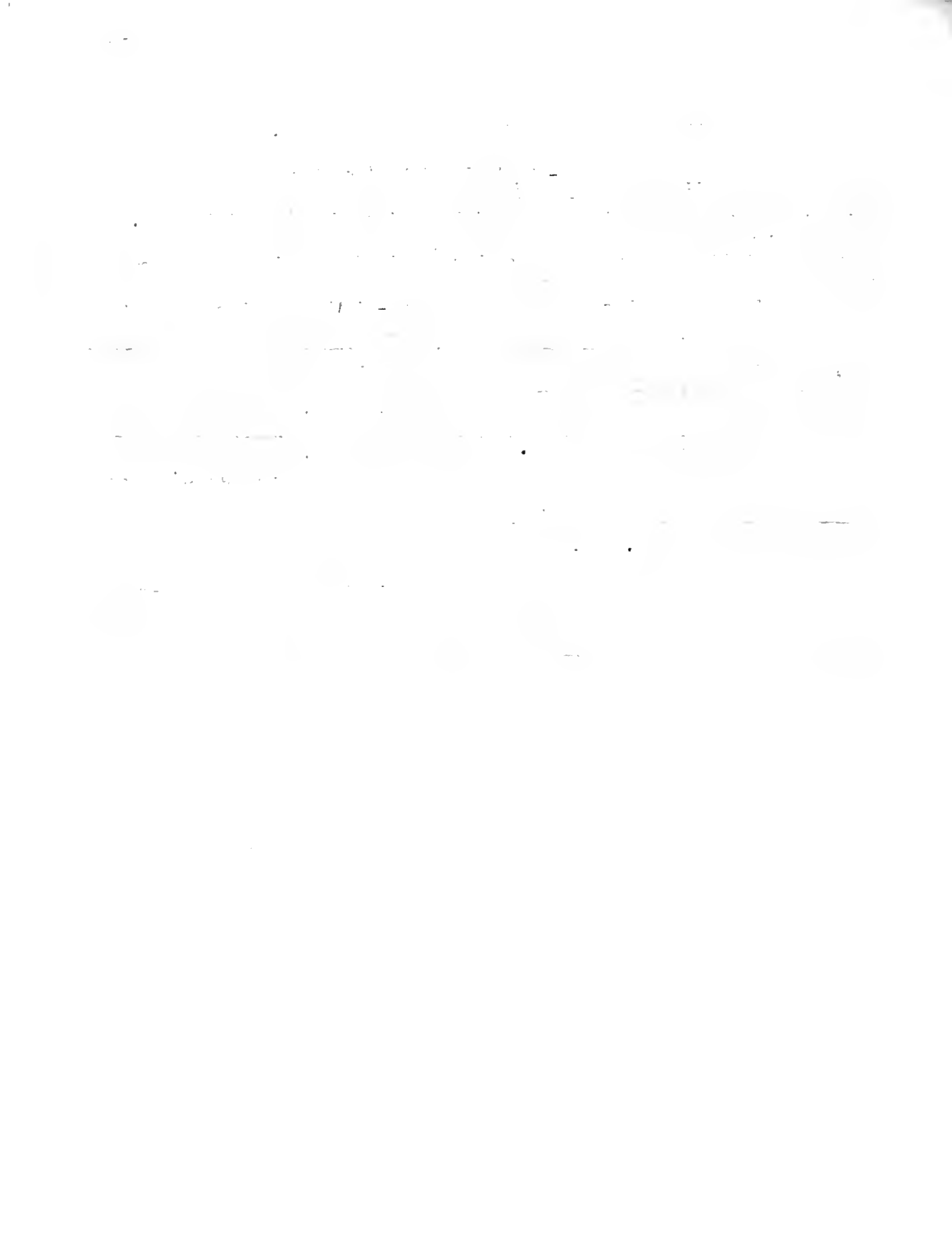




## THE PROBLEM OF GROUND SPACE FOR BASEBALL.

SMALL SCHOOLS - 25 to 125 BOYS (Continued)

Number of Boys	Number in Intramural Baseball	Coaching by Faculty Men	Special Athletic Coaches	Size of Athletic Field	Is Field Adequate? Yes or No	No. of Boys Trying for Comp. Team
85	25	Yes		One-sixth Mile Track	Yes	25
42	25	Yes		School Yard	No	9
42	30	Yes		550' x 575'	Yes	20
70	None in Baseball	Yes		300' x 375'	Adequate if better improved	20
62	24	Phy. Dir. plus Faculty		Regulation Baseball Field	Yes	12 The result of our Intramural Scheme



What conclusions may be drawn from the foregoing figures?

1. That no high school utilizes its play space to the best advantage. Either this or the high schools utilize the available play space for the specialization of the few to the exclusion of the many.

2. That many large high schools and medium-sized high schools are woefully lacking in play space, and that small high schools have plenty of room but that it is not used.

3. That systematic effort to promote intramural activities for the benefit of the many is lacking in all but a very few high schools of the State of California.

Large schools which have probably only one baseball diamond now can adjust their fields to such an extent that another field may be added. This new one may overlap the old one slightly but no harm will result. If properly adjusted an area of 250 feet by 350 feet can be made into two baseball diamonds. This is done by facing the left field of one into the right field of another. When center field of one faces center field of the other, the space required is larger. Similarly, an area of 375 feet square or thereabouts can be transformed into four baseball fields with the home plates at the four corners of the area. If games can be played, does it matter much whether an outfielder on one field encroaches upon the territory of an outfielder on another field? When the happiness and pleasurable activity of seventeen other boys is at stake, it most certainly does not!



## BASEBALL AND THE PHYSICAL EDUCATION CURRICULUM.

Broad-minded physical educators throughout the country have realized for a long time that too much stress has been placed on the practice of artificial movements in physical education. What is really wanted and needed in physical education are exercises which tend to awaken interest along physical lines and those which aid in the formation of the sturdier qualities in the youth of the nation.

When we find boys spending hour after hour around a basket ball goal trying to put the ball in the basket, or when we find boys kicking a football or throwing and catching a baseball for long periods of time, we know that these are the sort of things that interest them and which, furthermore, are good for them both in the physiological sense and in the upbuilding of that trait some have called "red-blooded manhood".

It is this view of physical education that I wish to be born in mind as we stop to consider what may be done with one phase of physical education, Baseball, in the short periods given by law to the developing of the physical being.

The introduction of compulsory physical education into the curriculum of the high schools of the State of California has no doubt raised the question in the minds of many directors of physical education as to whether or not baseball can be substituted for the more formal types of gymnastic drill. It seems to me that a discussion of this point will be particularly pertinent in view of the fact that many feel a slight hesitancy at bringing into the curriculum of physical education a form



of athletics which supposedly takes about two hours to accomplish results, both from the standpoint of a vigorous physical reaction and from the standpoint of team play.

Our question really resolves itself into this, "Can class work be conducted in baseball"? Without the slightest hesitancy I would say "Yes" and would add furthermore that a vigorous physical reaction can be obtained in a short time by proper organization of class work in baseball. The time element is an important consideration here so let us look for a moment at that phase of the new state physical education law. The wording of the law is this, - "All pupils enrolled in secondary schools, except pupils excused therefrom in accordance with the provisions of this act, shall be required to attend upon such courses of physical education for at least two hours of each week that school is in session". The word "such" refers to the purposes and aims of the courses as is set forth in the previous section of the bill.

Let us assume for the sake of argument that the two hours per week are divided into two one hour periods. When time is allowed for undressing, dressing and taking a bath, the maximum amount of play time that could be gotten from the one hour period would be forty minutes. Let us also assume that the physical education courses may be fitted into the rest of the curriculum at all hours of the day and not simply during after-school time as is the case with athletics in general where there is no state law or school law covering physical education. We would then have to face the condition of what we could do with a group of boys in baseball in forty minutes.





I will not claim that any great amount of team play can be developed except over an extended period of time, but I will claim that the essentials of the game could be taught and fine points of mechanical play mastered during the allotted period. The essentials would include proper methods of throwing, batting, bunting, fielding positions, base-running and sliding with a certain amount of combination play.

The large high school might have several classes per day of from fifteen to twenty boys each in baseball, boys who would choose baseball in preference to any other form of athletics. Just what would be the method of procedure for the instructor in a class of this sort? One diamond would be sufficient for the number of boys involved. The class should start as the season starts, the first few days given to throwing, batting, bunting, running, light infield and outfield work with particular attention to the fact that the boys get up a vigorous physical reaction. Later on sliding could be taught and followed by base-running and a stiff work-out for infield and outfield players. It does not take longer than ten to fifteen minutes of good infield and outfield work to get up a perspiration, but the instructor or assistant must be constantly on the alert to see that everyone is busy all the time. In a game, the physical reaction goes by "fits and starts", one minute the player is exerting himself to the limit in running for a ball or trying to stretch a single into a two-base hit, but the next five he may be resting. No such rest period can be given when the days work is but forty minutes. Definite plans must be laid and while the instructor is looking after one small group in a particular phase, someone else should be detailed to keep the remainder of the group busy at their particular work. Five minutes is



sufficient time for the players to get their arms warmed up if they go after the business in hand properly, leaving thirty-five minutes for the teaching of the various other elements of the game.

Later in the season when the boys have been drilled in the essentials, a game of two or three innings could be staged and afterwards a run around the bases to end up the work of the period with snap and vigor. One of the healthiest physical reactions possible can be obtained by practicing catching runners between bases. I have seen boys almost drop to the ground with fatigue after five minutes of this sort of work.

The smaller the class the easier it will be for the instructor to obtain the vigorous reaction as well as the necessary practice on the skilful maneuvers of the game. On the other hand, the decrease in numbers detracts from the fun each boy gets out of the play.

So much for the satisfaction of the law in physical education through the use of baseball. The aim of the instructor should be to develop such a spirit of "esprit de corps" in each class that games could be arranged in after-school time in which the members of one class could compete against those of another. In that way the interest would be at a height all the time, and each class would feel that during the class period it was practicing for something yet to come and not merely to satisfy the requirement in physical education. There are numerous opportunities in baseball for this sort of thing and instructors should be alive to the possibilities of staging intramural contests of this kind if they are to accomplish the results that are expected of them.

During recess periods boys should be given the opportunity to play catch and the Physical Education Department should have the equipment



close at hand and encourage this type of thing. I have never seen a boy yet who was interested in baseball who would not want to play catch when he had a few minutes of leisure and the equipment with which to play was close at hand. However, when large numbers of boys are playing on the same limited space, as so often happens at recess periods, playing catch must be watched carefully in order that injuries may be avoided. I do not think it advisable to allow batting of any sort at such times as these. All the boy should be allowed to do is to limber up a bit and free his mind from the mental strain. A vigorous physical reaction should be avoided except when a bath can be obtained afterwards.

The real competitive element in baseball must be developed in after-school time. This is to say that it is practically impossible to teach a group of boys to work to-gether with any degree of perfection in but eighty minutes per week. The various elements which go to make up team play in all its detail can be practiced during that time, but the boys cannot be woven into a smooth-working combination with the hitting strength that is necessary to win ball games in eighty minutes per week. Practice in batting takes time and is a tedious process at best. Then too, competition is the strength of all successful teams and competition can only be secured in after-school time. I deal more fully with the subject of after-school time later on.

It is essential that the physical director in a high school understand health supervision and that no boy be allowed to go into any form of athletics who has not a clean bill of health, who has a weak heart or severe abnormalities of one type or another. A thorough physical examination should be given every boy, blood pressures taken and special exercises prescribed for all who need postural attention. A thoroughly trained physical educator can work wonders in a high school if he proceeds along up-to-date lines and is allowed time enough for his work.



## BASEBALL AS AN INTRAMURAL ACTIVITY.

From what has gone before we see that any boy in school who is a normal boy will be allowed to compete in athletics and baseball in particular, since that is our prime consideration here. Now, if an intramural sport system is to be established, shall this competition be elective, voluntary as it were, or shall it be required, compulsory so to speak? I do not believe that the qualities which we wish to develop by means of the game can be developed as well if the system is compulsory as if it is elective, so we will assume that it is to be elective. The competition must be graded in such a manner, however, as to satisfy all concerned.

The love for the game of baseball will soon degenerate into passive recreation and sport rather than active unless some means is provided to take care of the scores of boys who want to play the game but are not skilled to the point where competition with the skilled player is interesting. In short, each individual must have a place made for him in the system. The weak player should find sympathy, encouragement, stimulus and skilled instruction. The skilled athlete should find all that he craves in clean, high-class competition.

Skill developed in some individuals and not in others creates unfairness for competition. Contests are hopeless between the skilled and the non-skilled. If one team alone is the goal to which all are striving, the unskilled boy becomes more and more outclassed and finally the law of competition eliminates him as unfit. There is no wonder that the weak, awkward boy rapidly loses interest in trying for the team,





if he finds practically no opportunity to practice or compete at his favorite sport. He will inevitably drop out of the activity, if he derives no pleasure or opportunity to profit in unequal participation.

But boys may be eliminated from the interscholastic team and still turn out for baseball every day if some team is provided for them. In a school of two hundred boys, there is no reason why one hundred and seventy-five of them should be eliminated from the values derived from baseball because they are not skilled enough to make an interscholastic team. The director of the sport by a little thought and planning, together with the help of a few "live-wire" captains, can form a school league, various class leagues, weight-team leagues and the like in sufficient number to take care of everyone. But the proposition must be organized and administered. The leader will have his hands full with the organization and cannot be expected to give much individual attention to the teams. This must be done by some other party. Faculty members should be interested in this sort of thing and their services enlisted. Suppose, however, that there is only one leader. The boys will be interested and all who wish will be engaged in the sport, if the proper enthusiasm is put into the organization and administration. Team spirit is the essential thing. It does not matter so much what team a boy is on, so that he is on a team. Leagues and teams must be adapted to the conditions of the school. What will work splendidly in one community will not do for another, and so on. Hence the inadvisability of my giving a definite program to follow. The advice I wish to give here is this, "Get everybody in school, who wants to play the game, on some team



and the interest in the game will take care of itself."

#### Plans for a Baseball Field-Day.

I do wish to present, however, something of a definite nature in the way of a Baseball Field-Day which, I believe, will prove very successful in adding interest to the national game from the standpoint of the participant, if not the spectator.

The aim of this plan is to interest as many boys as possible, regardless of their ability, to offer recreative exercise with the team influence, to recognize acquired ability, to offer an advantage to the team which gets everyone of its members into the meet, and to encourage all-around ability in the game.

The operation of the plan is as follows. All the boys in school who care to enter the competition are listed. When the list has been complete and it is seen how many boys are available for teams, captains are appointed from the best players and those who have the most enthusiasm. The number of captains depends on the number of teams of nine each which can be made from the list. In the selections for members of the various teams, great care must be taken to see that the highly-skilled players are distributed equally among the teams. This may be done by drawing lots among captains, or the players distributed by the director, a committee appointed by him or by the boys themselves or by the captains. Any fair means is agreeable.

Having the teams selected and ready, nothing remains but to provide the field and officials as in a track meet. Suppose for example that we had ninety boys entering the field-day. That would mean ten teams enter-



ing. The teams could be lettered A, B, C, D, E, etc., called by the names of their captains, or designated by common names of baseball teams such as the Maroons, Blues, Golds, White-Sox, Red-Sox, All-Stars, etc.

On the following pages will be found the point scoring system, together with a sample of the record sheet which should be kept of the meet. A few explanations will be noted following the table and the score sheet.

Such a field-day as the one suggested gives every boy an opportunity to enter and do his bit in making his team a winner. It may be easily seen that the team which is lacking a member is under a severe handicap and hence the necessity for getting every member of the team out on the day of the competition. The players, skilled and unskilled alike, being equally distributed, gives fair play to everyone, and adds an incentive for the unskilled to increase his efficiency in the particular event or events in which he is weak.

In case the points given for times and distances are too high or too low in some particular school, they should be arranged to fit conditions, the object being to allow the most skilled player in the school to win the maximum number of points in his special event and the unskilled player to win at least one point in his weakest event. Having determined this maximum or minimum time or distance, the schedule can be drawn up accordingly.



POINT COMPETITION FOR BASEBALL FIELD-DAY - SECONDARY SCHOOLS.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Time around the bases	19 $\frac{0}{10}$	18 $\frac{1}{10}$	17 $\frac{2}{10}$	17 $\frac{0}{10}$	16 $\frac{4}{10}$	16 $\frac{3}{10}$	16 $\frac{2}{10}$	16 $\frac{1}{10}$	16 $\frac{0}{10}$	15 $\frac{4}{10}$	15 $\frac{3}{10}$	15 $\frac{2}{10}$	15 $\frac{1}{10}$	15 $\frac{0}{10}$	14 $\frac{4}{10}$	14 $\frac{3}{10}$	14 $\frac{2}{10}$	14 $\frac{1}{10}$	14 $\frac{0}{10}$	13 $\frac{4}{10}$
Time to first	7 $\frac{1}{10}$	7 $\frac{0}{10}$	6 $\frac{4}{10}$	6 $\frac{3}{10}$	6 $\frac{2}{10}$	6 $\frac{1}{10}$	6 $\frac{0}{10}$	5 $\frac{4}{10}$	5 $\frac{3}{10}$	5 $\frac{2}{10}$	5 $\frac{1}{10}$	5 $\frac{0}{10}$	4 $\frac{4}{10}$	4 $\frac{3}{10}$	4 $\frac{2}{10}$	4 $\frac{1}{10}$	4 $\frac{0}{10}$	3 $\frac{4}{10}$	3 $\frac{3}{10}$	3 $\frac{2}{10}$
Time to second	10 $\frac{4}{10}$	10 $\frac{3}{10}$	10 $\frac{2}{10}$	10 $\frac{1}{10}$	10 $\frac{0}{10}$	9 $\frac{4}{10}$	9 $\frac{3}{10}$	9 $\frac{2}{10}$	9 $\frac{1}{10}$	9 $\frac{0}{10}$	8 $\frac{4}{10}$	8 $\frac{3}{10}$	8 $\frac{2}{10}$	8 $\frac{1}{10}$	8 $\frac{0}{10}$	7 $\frac{4}{10}$	7 $\frac{3}{10}$	7 $\frac{2}{10}$	7 $\frac{1}{10}$	7 $\frac{0}{10}$
Time to third	15 $\frac{0}{10}$	14 $\frac{3}{10}$	14 $\frac{1}{10}$	13 $\frac{4}{10}$	13 $\frac{2}{10}$	13 $\frac{1}{10}$	13 $\frac{0}{10}$	12 $\frac{4}{10}$	12 $\frac{3}{10}$	12 $\frac{2}{10}$	12 $\frac{1}{10}$	12 $\frac{0}{10}$	11 $\frac{4}{10}$	11 $\frac{3}{10}$	11 $\frac{2}{10}$	11 $\frac{1}{10}$	11 $\frac{0}{10}$	10 $\frac{4}{10}$	10 $\frac{3}{10}$	10 $\frac{2}{10}$
**Throw for distance	150	155	160	165	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320
***Throw for accuracy	1 $\frac{1}{20}$	2 $\frac{2}{20}$	3 $\frac{3}{20}$	4 $\frac{4}{20}$	5 $\frac{5}{20}$	6 $\frac{6}{20}$	7 $\frac{7}{20}$	8 $\frac{8}{20}$	9 $\frac{9}{20}$	10 $\frac{10}{20}$	11 $\frac{11}{20}$	12 $\frac{12}{20}$	13 $\frac{13}{20}$	14 $\frac{14}{20}$	15 $\frac{15}{20}$	16 $\frac{16}{20}$	17 $\frac{17}{20}$	18 $\frac{18}{20}$	19 $\frac{19}{20}$	20 $\frac{20}{20}$
#Fungo hitting	200	205	210	215	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370

\* Time taken from the crack of the bat until the base is reached.

\*\* Any length run may be had as long as the take-off line is not stepped on or over.

\*\*\* Distance from thrower to object equals 60 ft. 6 inches. Hole cut in a frame standing 24 in. off the ground. Size of hole equals 18 inches wide by 36 inches deep, to represent the size of the plate in breadth and the average distance between a boy's knees and shoulders, that is, 36 in.

# Same rules as for throw for distance.

THE ABOVE TABLE SHOULD BE PASTED ON EACH SCORE SHEET.





BASEBALL FIELD-DAY SCORE SHEET.

NAME OF PLAYER	P O S I T I O N	TEAM	TOTAL SCORE	Around the bases		To 1st base		To 2nd base		To 3rd base		Throw for distance		Throw for accuracy		Fungo hits	
				T I M E . .	P O I N T S . .	T I M E . .	P O I N T S . .	T I M E . .	P O I N T S . .	T I M E . .	P O I N T S . .	T I M E . .	P O I N T S . .	T I M E . .	P O I N T S . .	T I M E . .	P O I N T S . .
Abernethy, F.P.	2	Reds	78	16 <sup>0</sup> / <sub>0</sub>	9	5 <sup>4</sup> / <sub>8</sub>	8	9 <sup>2</sup> / <sub>2</sub>	8	12 <sup>3</sup> / <sub>9</sub>	9	290	17	12	12	321	15
Borton, Richard	8	Reds	101	14 <sup>4</sup> / <sub>4</sub>	15	4 <sup>0</sup> / <sub>17</sub>	16	7 <sup>4</sup> / <sub>16</sub>	16	11 <sup>2</sup> / <sub>15</sub>	15	305	18	7	7	302	13
Donald, J. F.	4	Golds	96	15 <sup>0</sup> / <sub>0</sub>	14	4 <sup>0</sup> / <sub>17</sub>	17	7 <sup>3</sup> / <sub>17</sub>	17	11 <sup>3</sup> / <sub>14</sub>	14	260	14	11	11	265	9
Dorton, Robert	3	Maroons	87	16 <sup>1</sup> / <sub>1</sub>	8	4 <sup>2</sup> / <sub>15</sub>	12	8 <sup>3</sup> / <sub>12</sub>	12	12 <sup>3</sup> / <sub>9</sub>	9	290	17	8	8	357	18
Engle, James T.	6	W-Sox	90	15 <sup>2</sup> / <sub>2</sub>	12	4 <sup>3</sup> / <sub>14</sub>	14	6 <sup>2</sup> / <sub>13</sub>	13	11 <sup>4</sup> / <sub>13</sub>	13	257	13	13	13	298	12
Ferris, M. S.	1	Blues	72	17 <sup>1</sup> / <sub>1</sub>	3	5 <sup>1</sup> / <sub>11</sub>	11	9 <sup>2</sup> / <sub>8</sub>	8	13 <sup>2</sup> / <sub>5</sub>	5	307	18	17	17	270	10
Fuller, W. P.	9	Golds	72	16 <sup>2</sup> / <sub>2</sub>	7	5 <sup>0</sup> / <sub>12</sub>	12	9 <sup>1</sup> / <sub>9</sub>	9	13 <sup>1</sup> / <sub>6</sub>	6	262	14	5	5	362	19
Harris, Geo.	7	W-Sox	121	14 <sup>3</sup> / <sub>3</sub>	16	3 <sup>4</sup> / <sub>18</sub>	18	7 <sup>2</sup> / <sub>18</sub>	18	10 <sup>4</sup> / <sub>18</sub>	18	318	19	14	14	369	18

NOTES.

- Names should be arranged in alphabetical order.
- The position played by each should be designated by numbers:- 1 for pitcher, 2 for catcher, 3 for first baseman, 4 for second baseman, 5 for third baseman, 6 for shortstop, 7 for left fielder, 8 for center fielder and 9 for right fielder.
- The list of names should be divided into seven equal parts on account of the number of events, a card for each. Each division should work on one event and go to the next in regular order.
- At the end of the day it will be a simple matter to add the total score of each team since it is close to the team name.

Year	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024																																																																																																																										
Population	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855	860	865	870	875	880	885	890	895	900	905	910	915	920	925	930	935	940	945	950	955	960	965	970	975	980	985	990	995	1000																
GDP	100	105	110	115	120	125	130	135	140	145	150	155	160	165	170	175	180	185	190	195	200	205	210	215	220	225	230	235	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	315	320	325	330	335	340	345	350	355	360	365	370	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450	455	460	465	470	475	480	485	490	495	500	505	510	515	520	525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840	845	850	855	860	865	870	875	880	885	890	895	900	905	910	915	920	925	930	935	940	945	950	955	960	965	970	975	980	985	990	995	1000																
Unemployment	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0	34.5	35.0	35.5	36.0	36.5	37.0	37.5	38.0	38.5	39.0	39.5	40.0	40.5	41.0	41.5	42.0	42.5	43.0	43.5	44.0	44.5	45.0	45.5	46.0	46.5	47.0	47.5	48.0	48.5	49.0	49.5	50.0	50.5	51.0	51.5	52.0	52.5	53.0	53.5	54.0	54.5	55.0	55.5	56.0	56.5	57.0	57.5	58.0	58.5	59.0	59.5	60.0	60.5	61.0	61.5	62.0	62.5	63.0	63.5	64.0	64.5	65.0	65.5	66.0	66.5	67.0	67.5	68.0	68.5	69.0	69.5	70.0	70.5	71.0	71.5	72.0	72.5	73.0	73.5	74.0	74.5	75.0	75.5	76.0	76.5	77.0	77.5	78.0	78.5	79.0	79.5	80.0	80.5	81.0	81.5	82.0	82.5	83.0	83.5	84.0	84.5	85.0	85.5	86.0	86.5	87.0	87.5	88.0	88.5	89.0	89.5	90.0	90.5	91.0	91.5	92.0	92.5	93.0	93.5	94.0	94.5	95.0	95.5	96.0	96.5	97.0	97.5	98.0	98.5	99.0	99.5	100.0						
Inflation	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5	18.0	18.5	19.0	19.5	20.0	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.0	34.5	35.0	35.5	36.0	36.5	37.0	37.5	38.0	38.5	39.0	39.5	40.0	40.5	41.0	41.5	42.0	42.5	43.0	43.5	44.0	44.5	45.0	45.5	46.0	46.5	47.0	47.5	48.0	48.5	49.0	49.5	50.0	50.5	51.0	51.5	52.0	52.5	53.0	53.5	54.0	54.5	55.0	55.5	56.0	56.5	57.0	57.5	58.0	58.5	59.0	59.5	60.0	60.5	61.0	61.5	62.0	62.5	63.0	63.5	64.0	64.5	65.0	65.5	66.0	66.5	67.0	67.5	68.0	68.5	69.0	69.5	70.0	70.5	71.0	71.5	72.0	72.5	73.0	73.5	74.0	74.5	75.0	75.5	76.0	76.5	77.0	77.5	78.0	78.5	79.0	79.5	80.0	80.5	81.0	81.5	82.0	82.5	83.0	83.5	84.0	84.5	85.0	85.5	86.0	86.5	87.0	87.5	88.0	88.5	89.0	89.5	90.0	90.5	91.0	91.5	92.0	92.5	93.0	93.5	94.0	94.5	95.0	95.5	96.0	96.5	97.0	97.5	98.0	98.5	99.0	99.5	100.0

### The After-School Problem.

In reply to the questionnaire on Physical Training and Athletics, statistics from which have been previously quoted, one principal of a small high school sent in a article written by himself on the "After-School" problem in his school - a Union High School. His plan is rather unique and I wish to quote the article here since the author has given his consent. I am indebted to Mr. L. P. Farris of the Sutter Union High School for this article.

" One of the problems which confronts a small high school is that of handling the various student activities without conflict and in such a way that the maximum benefit may be had by the participants, without injury to the remainder or by the remainder of the student body, and to secure as large a percentage to take part in these activities as is consistent with a proper educational standard. In pursuance of such a policy the Sutter Union High School has increased its schedule from seven to eight periods, and in this eighth period the various activities have their place. By careful arrangement of the schedule, the various forms of athletics - track, baseball, tennis, and volley ball, - student plays, orchestra, and glee club are enabled to proceed harmoniously and without conflict; and the students have a choice of two and sometimes three of these phases of school life."

" Those to whom these activities do not appeal, or who because of deficiencies prefer to spend the time in study, may go to the study hall which is conducted as in any other period during the day. The teachers have various detention nights on which they are able to assist the



student who is not doing satisfactory work and see that for that period he is studying his lesson in an approved method."

" The many advantages of the plan can not but be evident, almost at first glance. The student who wishes to study is undisturbed and can pursue his subject diligently for another forty minutes and not be harassed by the confusion following the dismissal of school. When school is finally dismissed it is much nearer the time when those who come by train must go home and many of the other students in outside activities continue so that the confusion at the later dismissal is a negligible factor".

" It has been the experience here as well as elsewhere that the hour or two after school is practically wasted in loitering about the building, corridors, or playgrounds by a great many students who thus gain nothing for themselves and prove to be an obstacle in the way of the diligent. These pupils are by the new method led into some form of activity that will be of benefit to them, at the same time the others are relieved of the unfavorable conditions for study. It is admitted by all that the successful introduction of athletics into a high school bespeaks as extensive participation as can be induced without doing violence to the academic curriculum. The new method has induced SEVENTY PERCENT OF THE STUDENT BODY to take up some phase of athletics for at least two nights a week as an alternative to staying in the study hall every night. The fact that we bring that great majority, who otherwise never get systematic physical training, into our athletic world is, alone, sufficient justification for our faith in the new regime, and we feel confident that the results to be obtained can only tend to

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This not only helps in tracking expenses but also ensures compliance with tax regulations.

In the second section, the author provides a detailed breakdown of the monthly budget. It includes categories for housing, utilities, food, and entertainment. By comparing actual spending against the budgeted amounts, one can identify areas where costs are exceeding expectations and make necessary adjustments.

The third section focuses on investment strategies. It suggests that diversification is key to minimizing risk and maximizing returns over the long term. The author recommends a mix of stocks, bonds, and real estate, tailored to the individual's risk tolerance and financial goals.

Finally, the document concludes with a strong emphasis on financial discipline. It encourages regular saving and the avoidance of unnecessary debt. Consistent effort and a clear understanding of one's financial situation are presented as the foundation for long-term wealth accumulation.

strengthen that faith."

What an admirable plan! And we may add that, if this can be done in one high school, something similar can be done in others. No better suggestion can be offered than something which is actually in force and bringing results.

#### A Scheme for Grading in Baseball.

It is quite probable that, since physical education has been made compulsory in the State of California, the game of baseball will be played for physical education credit in many of our schools. In view of this possibility, it would be well to offer some suggestions as to the method of grading boys in athletic work, especially in baseball.

The grade a boy receives for this type of activity should be based not upon the degree of proficiency which he attains in baseball, but upon <sup>the interest</sup> that he takes in his work and upon the improvement which is shown after a reasonable period of development. Some boys will never attain a very marked degree of excellence in their mechanical ability as baseball players because of the years of practice necessary to attain certain highly specialized muscle co-ordinations and the like, but there is no reason why every boy should not become fairly proficient in the mechanical (physical) phase of the game as well as markedly proficient in the mental side. A brief written examination might even be given to test this knowledge of the game, its intricacies in terms of thinking power, etc. A boy who has entered into baseball as a novice and has picked up the game rapidly by hard work, practice and concentration on the finer points, should be given the highest grade the same as one who was very

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skilled and had kept working hard trying to gain perfection. Those who show only the ordinary interest and work along with the average amount of effort may be either skilled or unskilled, but yet would receive the grade lower, while those who exhibited tendencies to lagging and dis-interest whether skilled or unskilled should be graded merely passing.

An entirely indifferent attitude toward the work would bring a grade of failure to any boy. I do not believe that any percentage mark could be given except in the case of a written examination, but general averages may well be approximated by the above means and will be found to be fairly accurate. There are boys who simply scrape along in the line of least resistance and then there are those who endeavor to gain as much information and practical knowledge, both physical and mental, as possible. There should be quite a distinction in the grades of these. Again there are others who have to be told over and over about certain things, and their opposites who never have to be told twice. The same distinction in grading must be made here.

#### GENERAL ADVICE TO COACHES OF BASEBALL IN HIGH SCHOOLS.

In making baseball an integral part of high school activity, practically everything depends upon the coach or leader. He must study human nature as exhibited in the abandon of the game and he must ever bear in mind certain general principles in dealing with boys.

#### The Coach as a Teacher and a Leader.

The coaching of any athletic sport should be conducted along pedagogical lines, the same as an academic subject. The course must be organized, the material must be gotten well in hand, and a definite pro-



gram must be arranged for each day. This is the only way in which interest may be maintained in any subject. There is a great deal of difference between the actual playing of the game and the teaching of it to others.

The coach must remember this and be a TEACHER. There should be teachers of baseball the same as there are teachers of science. Above all things, "Do not let the boys come out simply to fool around". Teachers do not allow fooling in history or mathematics, then why in baseball? As has been pointed out, baseball is an intensely scientific study and should be studied in this light. If you do not believe this, calculate the length of time it takes the pitcher to deliver the ball to the catcher and the catcher to throw to second base, and compare this with the time it takes a runner to go from first to second with an eight foot lead. Theoretically, a runner cannot steal second with perfect playing. Yet it is done several times every game. There are many such problems to be figured out theoretically.

On the other hand, do not make the playing of baseball so scientific that there is no fun in it. Boys should come out for baseball because they enjoy playing, because they love the sport. Mix your fun with science; get in and play the game yourself; be a good sportsman.

Teachers in others subjects allow no cheating, no unfair play of any kind. The same rule applies to baseball. Allow absolutely no beating of the game such as cutting bases, holding runners on bases, etc. when the umpire is not looking. Some players have learned "dirty little tricks" and can use them so skilfully that it is hard to detect them. I have known of catchers putting their mask directly in the path of the



runner on a play at home plate so that the runner would slide into it or trip over it and give the catcher a better chance to put him out. Such contemptible playing should not be tolerated. Another instance of beating the game may be cited when a runner is trapped between bases. As the ball is thrown from one player to another, the runner watches his chance and throws up an arm to stop it and makes his base in safety. He is legally out if the umpire sees the play, but many times he does not. Take such a player as that out of the game and teach him a lesson; at least, warn him first and then take him out if the second offence is committed. See that your boys give the runner plenty of room in rounding a base when there is no play at that base. Often basemen stand close to their bases to make runners take a wider turn. These things are not often disastrous, but players do them at their own risk. There is nothing to hinder the runner from giving the player, who does this sort of thing, a bad twist or from sending him on his head. This is not sportsmanship, yet players do it for the sake of the team, to cut off a run or put a man out at the next base. In a way they are showing loyalty to their team in trying to win, but not clean sportsmanship. Clean loyalty and clean sportsmanship must go together if baseball is to teach principles of honesty and uprightness, clean, wholesome living. Remember that you are a leader and may exercise a considerable influence over the lives of the boys under your direction. Let them know just how you stand as regards sportsmanship.

#### Coaching Involves the Study of Human Nature.

In order to be a successful coach you must make a study of your boys and know them thoroughly, know what their weak points are and also

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their strong ones. Try to make their weak points stronger and keep their strong ones from growing weak. You will find after a little while that you will have to treat every boy differently. The coach who says, "I'm going to treat you all alike", is either contradicting himself or is doing many boys an injustice. No teacher can treat everybody alike and still remain a teacher. Consciously or unconsciously you will have to pat "Jim" on the back, drive "Harry", and give a few words of praise to "Bill", etc. Also unconsciously you will like some boys better than others. All teachers do whether they admit it or not. It is human nature and something one cannot get away from. This does not mean that you will "play favorites" and put "Bill" on the team when "Harry" should have the job, and so on. Partiality cannot be shown. A coach as a rule is too anxious to have the best possible chance to win to put anybody on his team who does not rightfully belong there. Your judgment may be wrong in some cases but you cannot be a true teacher and "play favorites". If in doubt between several men you should not be above talking things over with the captain or one of the older players. They also like to have the best team but are inclined to show partiality at times. Their judgment, however, is valuable. When you know all your boys thoroughly, there will not be much question as to who is the best man for the job.

Let me relate a story to illustrate how coaches study human nature.

A coach was undecided as to two players so he called them together and told them that he was unable to decide between them and that the best way out of the difficulty would be to toss a coin. One player agreed, but the other said, "No", and added that he thought he was the best man and wanted a further test of ability. Immediately the coach

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The third section details the statistical analysis performed on the collected data. It describes the use of descriptive statistics to summarize the data and inferential statistics to test hypotheses. The results indicate a significant correlation between the variables being studied.

Finally, the document concludes with a summary of the findings and their implications. It suggests that the data supports the initial hypothesis and provides valuable insights into the phenomenon being investigated. The author also offers recommendations for further research and practical applications of the findings.



chose the latter player, for it was easy to see that the second player was not to be cheated out of his position by any trickery. He had rare judgment and the coach realized it.

#### Some Suggestions to Coaches and General Principles to Follow.

1. Be kind but firm. Inspire your boys to have confidence in you and put confidence in them. Don't make them feel that when they have made a misplay they will have to come to the bench and listen to an awful "balling out". Show them by a series of logical arguments where they have made their mistakes and how they may avoid them in the future. Put faith in your boys. I call to mind an example of one of the Freshman players who had a bad batting slump and had lost confidence in himself at the bat. I called him aside one day for a little talk, tried to cheer him up and explained that he was as good as anyone else if he could get back the old spirit. He made two hits in the game that day and retrieved his lost confidence. Many times a heart to heart talk with a boy will do much good.

2. Teach your players to think for themselves. Don't allow them to depend too much on your advice. The team that is run entirely by the coach will fall down in a pinch when the players must think for themselves. Let me give an example of quick thinking in major league baseball which was so quick that the manager could not follow it. This example is taken from "Touching Second" by Evers and Fullerton.

" Eagan was playing second base, Dahlen third and Anson first. Chicago and New York were fighting desperately for victory. The score was tied. A New York runner was on second base, one man was out and George Van Haltren at bat. Van Haltren hit a sharp ground ball five feet to the

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right of Egan. The ball struck his hands, he fumbled and the ball rolled five feet away. Like a flash Egan pounced after the ball, recovered it, and without stopping or looking, hurled it toward Dahlen. The third baseman, intent on making the runner turn wide, looked up just in time to dodge as the sphere flashed by his head and bounced into the stands. One run scored, Van Haltren raced around to third, scored on a fly, and Chicago was beaten 4 to 3."

"You're rotten", "Release him", "Get a second baseman", yelled the crowd. Within a week Anson released Egan.

" That play shows how little the millions of fans who watch games know about baseball. Also it shows the relative speed with which the brain cells of the players involved worked. Egan thought too rapidly for Dahlen whose mind, intent on something else, moved an eighth of a second too late, and Anson, by releasing Egan for making a brilliant play, showed that he never grasped the situation at all."

" The speed with which Egan's brain convolutions moved may be judged from the fact that a batted ball, hit toward a second baseman playing 135 feet from the plate reached his hands in from four-fifths of a second to three seconds, depending upon the force with which it is hit and the way it bounds. The ball hit to Egan was hard hit, bounded four times on solid turf, and probably struck his hands one and one-fifth seconds after it left Van Haltren's bat. The entire play was made in less than three seconds, and this is the process through which Egan's brain went in that time. His first thought was direction; second, speed; third, how the ball was bounding and whether to back up or come in on it. He

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The third section provides a detailed description of the data analysis process. This involves identifying patterns, trends, and anomalies within the data set. Statistical tools and software were used to facilitate this process, ensuring that the results are both accurate and reliable.

Finally, the document concludes with a summary of the findings and their implications. It highlights the key insights gained from the study and offers recommendations for future research and practice. The author notes that while the current study provides valuable information, there are still several areas that require further investigation.

knew Van Haltren could reach first base in three and two-fifths seconds, and that to throw there he would have to recover the ball, make a half-turn and then throw.

The moment the ball bounded away from his hands he knew Van Haltren could beat it to first. Then, while springing after the ball he thought: "Clark, who is going to third, will turn ten feet around the base, hesitate and look to see whether the ball has rolled to the outfield and, if I can get the ball to Dahlen while Clark is hesitating, we will catch him". So he made the play and, if Dahlen's brain had worked at the same rate of speed, Clark would have been out - and Chicago would have won."

3. Do not be afraid to listen to your players when they think that a certain play will not work or that a play should be made in a different manner. You may learn from the boys for they have the player's point of view, a point of view which it is easy for you to get into the habit of ignoring. To any who have had experience in coaching, you will find that unconsciously you have picked up many points from the players.

4. The coach must watch every angle of the game. Pick out individual men and watch their movements on certain plays. You will find that this is not an easy thing to do for the tendency is to watch the ball and that alone. At the same time watch things in general. The coach must cultivate a habit for this.

5. Pick out the weak points in the opposing team and show them why they are weak. Be logical in your reasoning. Boys like to have a reason for everything they do. Explain to them the "whys" and the "wherefores".

6. Don't try to change any natural tendency of your players if the tendency is accomplishing results.

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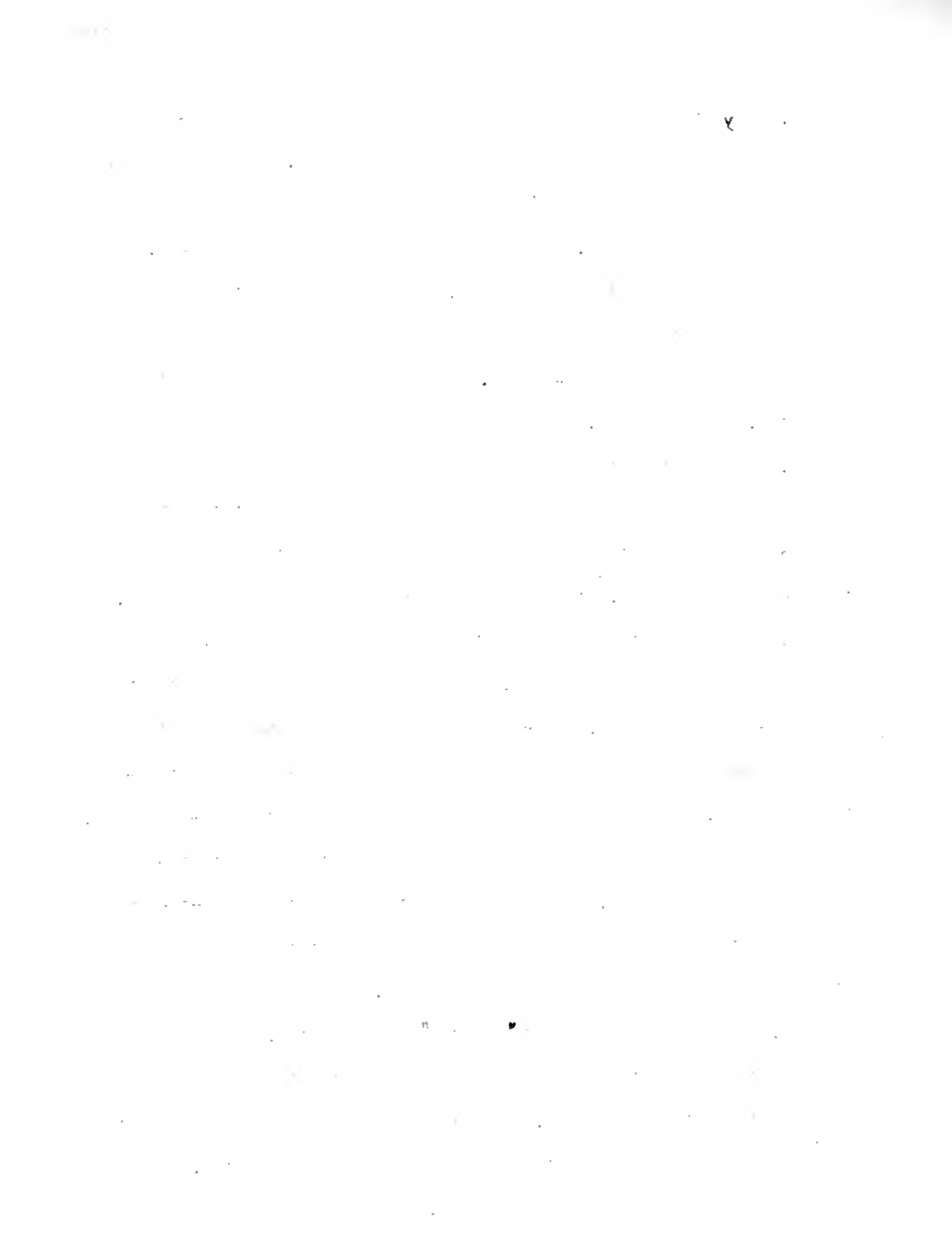
Finally, the document concludes with a discussion of the implications of the findings. It suggests that the results have significant implications for the field of study and provides recommendations for further research. The author also acknowledges the limitations of the study and offers suggestions for how these can be addressed in future work.

7. Many times you will have to make a catcher or a pitcher out of a player who has never before played the position. Boys may want to play certain positions when they are really best fitted for others and are needed most elsewhere. Do not be afraid to shift your line-up. Pick out the smoothest working combination. In order to get this smooth-working combination, it is often necessary to break up a clique or a certain group that hangs to-gether. Cliques on a team are often its ruination. Break them up.

8. If possible maintain your squad in tact throughout the season. Remember that there are years to come and that a second-string player gains a good deal of information about baseball by being out and watching the play every day. Play your second stringers whenever possible.

9. Besides knowing the game, there are certain other features necessary to successful coaching. The coach must be able to handle boys and impart his knowledge. I have known of expert players who could not coach because they could not handle boys, and were not good at imparting knowledge. They could not express their knowledge in accurate terms. They knew how things ought to be done but could give no logical reason for doing them properly. Also there are others, one in particular that I recall, who make good coaches simply on their ability to handle boys, without much technical knowledge of the game.

10. Do not allow continual "crabbing" at the umpire. He cannot change his decisions and maintain his dignity, and continual crabbing prejudices him against your team. If he has made a poor decision against your team, remember that he is doing his best and say nothing. He will respect your team more for such actions.





11. Keep your boys fighting hard all the time whether winning or losing, but do not insist on too much loud talk or noise. "Pepper" doesn't consist in everybody yelling all the time.

12. You cannot expect to handle a high school team as you would a grammar school team or on the other hand a college team. There is a difference in age and the boys will have to be treated differently as well as taught certain plays in a different manner. High school boys are not old enough in baseball to make certain plays that college or professional teams work daily.

13. Get good uniforms for your players. Don't have misfits or several types. Good uniforms add to the efficiency of the team. This is a bit of psychology, for on the whole, the team with good uniforms all alike, works more as a unit.

14. On rainy days when you can't take your players on the field, call them together for a blackboard talk. Explain the fine points of play and ask questions as well as ask for them. Have your boys do some shadow throwing in the gymnasium to keep their arms in condition.

15. Some persons advise taking a holiday before an important game, but I have found that a light infield and outfield workout plus some good batting practice improves the play of the next day. Baseball is unlike football in this respect, as the football season is strenuous throughout and the players really need the rest before a big game.

16. Any great amount of funge hitting spoils the batting eye of a player for he gets the wrong angle on the ball. Some of this of course must be done, but try to divide the burden among several players.



A P P E N D I X   T O   T H E S I S .

T H E   O R G A N I Z A T I O N   O F   H I G H   S C H O O L   A T H L E T I C   S Y S T E M S .

W I T H

E X P L A N A T O R Y   D I A G R A M S .



## APPENDIX

THE ORGANIZATION OF HIGH SCHOOL ATHLETIC SYSTEMS.

The questionnaire on Physical Training and Athletics (mentioned before) brought out certain defects in the organization of the athletic systems in the high schools of California. Since the subject of athletics in general is rather closely connected with the subject of this thesis, I deem it advisable in the following pages to offer suggestions in the nature of methods of organizing the athletic system in various sized high schools. The suggestions which I offer are not radical changes from the present scheme of things, but rather they take conditions generally as we find them and attempt to make them conform to some standard.

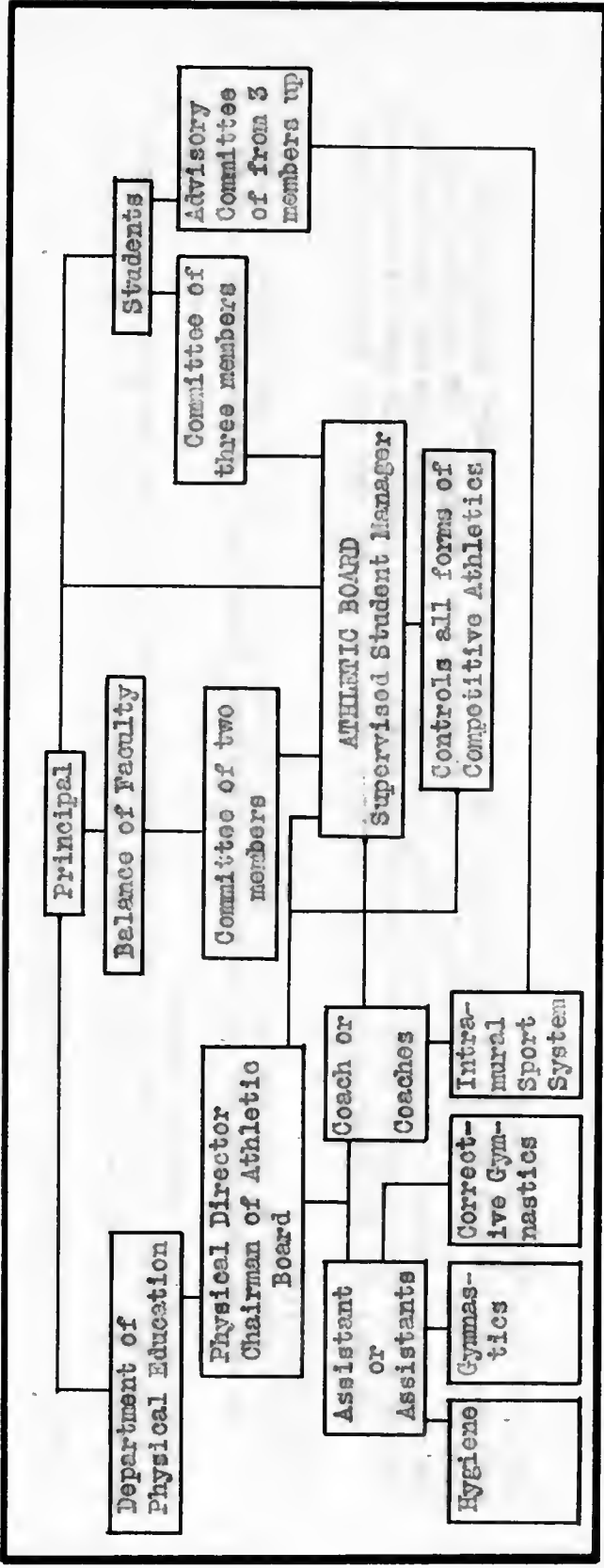
Large High Schools.

At present the general method of organization of the athletic system in large high schools is about like this:- a physical director with assistance from a special coach for all athletics, or a faculty member who devotes after-school time to this work.

This system should work well providing the director is in complete charge and the athletic coach is made a member of the faculty and held responsible for the type of coaching which takes place. There is a decided advantage in having one man handle all the athletic work and that alone, for he then has time to plan for something more than the mere coaching of the team. The type of organization which will benefit the greatest number may then be considered and schedules drawn up accordingly. If the physical director in a large high school must coach all teams and look after the gymnastic work besides, he has more than he can do to get the results that should be expected. Often it will require not one but two or three assistants to handle the situation. Everything depends upon the number of boys in the school.



DIAGRAM SHOWING ATHLETIC SYSTEM FOR LARGE HIGH SCHOOLS - 300 BOYS AND UP.



EXPLANATION OF THE ABOVE DIAGRAM.

In the above diagram we see the Principal as the head of the school and having jurisdiction over the entire school, both faculty and students. The Physical Director, in charge of the Department of Physical Education, has immediate control of the athletic situation - the athletic coach or coaches being members of his staff.

However, in the matter of school competition teams, that is, teams representing the school in outside competition, the Physical Director while in immediate charge has an organization to work with him, namely, the Athletic Board. This Board is made up as follows:- The Physical Director as chairman, the Principal, athletic coach or coaches as the case may be, two additional members of the faculty ( if it seems advisable) selected for their broad-minded training and knowledge of sports in general, and three members of the student body selected at large. One of these latter acts as student manager under the general jurisdiction and supervision of the Board





EXPLANATION OF THE FOREGOING DIAGRAM (Continued).

and under the immediate supervision of the Physical Director. The function of the Board is to guide athletics along the right channels, generally supervise them and determine matters of athletic policy from all angles.

It will be seen that the students have an advisory committee of three members or more to confer with and assist the Physical Director and coach or coaches in the matter of Intramural activities.

The Physical Director may coach all athletic teams or he may turn this particular work over to a special athletic coach or coaches who look after the competitive element as well as the intramural system. In general in large high school, I believe the Physical Director will have his hands full with administration, gymnastic activities, hygiene, and the like, and will not have time to devote to the coaching of all the competitive teams, though he may handle one or more of them.



I greatly fear from the number enrolled for intramural sports in the majority of the large schools that the competition team alone is the only one which is given much consideration. Boys will simply not become interested in intramural activity unless there is some one to act as director and carry the burden of organization. The interest is bound to lag if boys are left to shift for themselves after having been given a start. Schedules must be drawn up, rules and regulations laid down, umpires secured, score-keepers obtained, and details generally attended to before the proposition can be put on a firm basis. The preceding diagram illustrates my idea of how the athletic situation should be handled in a large high school.

#### The Medium-Sized High School.

In medium-sized high schools we find that the physical director must do everything himself or obtain voluntary aid from some other faculty man. Sometimes it happens that a faculty man teaching academic subjects several hours of the day is the only help given to the athletics of the school. It cannot be expected that such a man can plan and carry out a double schedule. The results obtained in such instances prove that he does not attempt to do it. I believe that if there were two men especially delegated to the physical education work of the medium-sized high school, the results obtained through athletic participation would more than offset the necessary expenditure. Boards of Education are just now commencing to realize the possibilities in physical activity and the evils which have gone on unnoticed because of insufficient help to cope with the situation. Here again the director should be in charge of all athletic work. There should be no toleration of the itinerant coach, the man who is here to-day and gone to-morrow for the consideration of a few dollars. Nor should the captain be allowed to have the supervision and coaching of the team any more than a bright

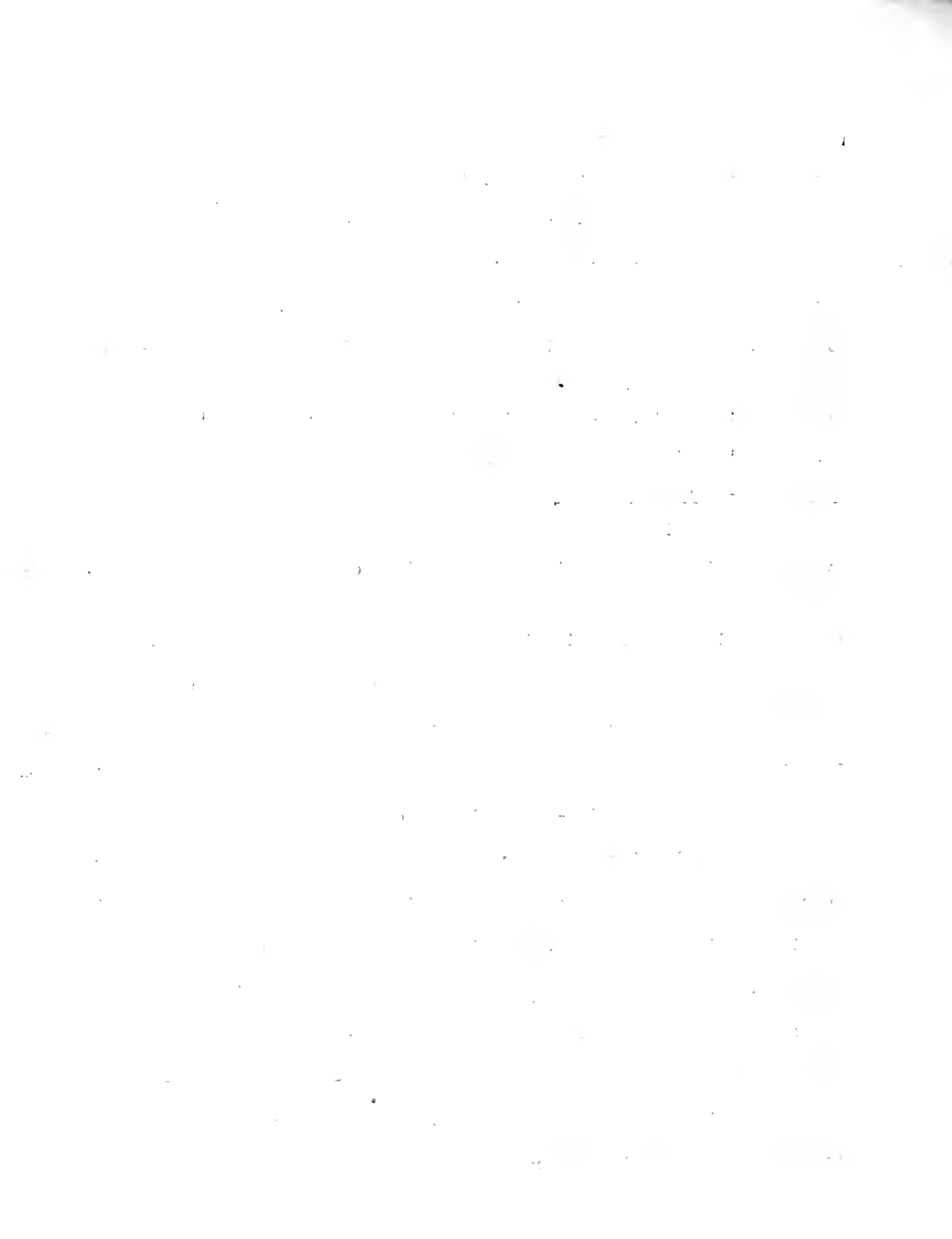
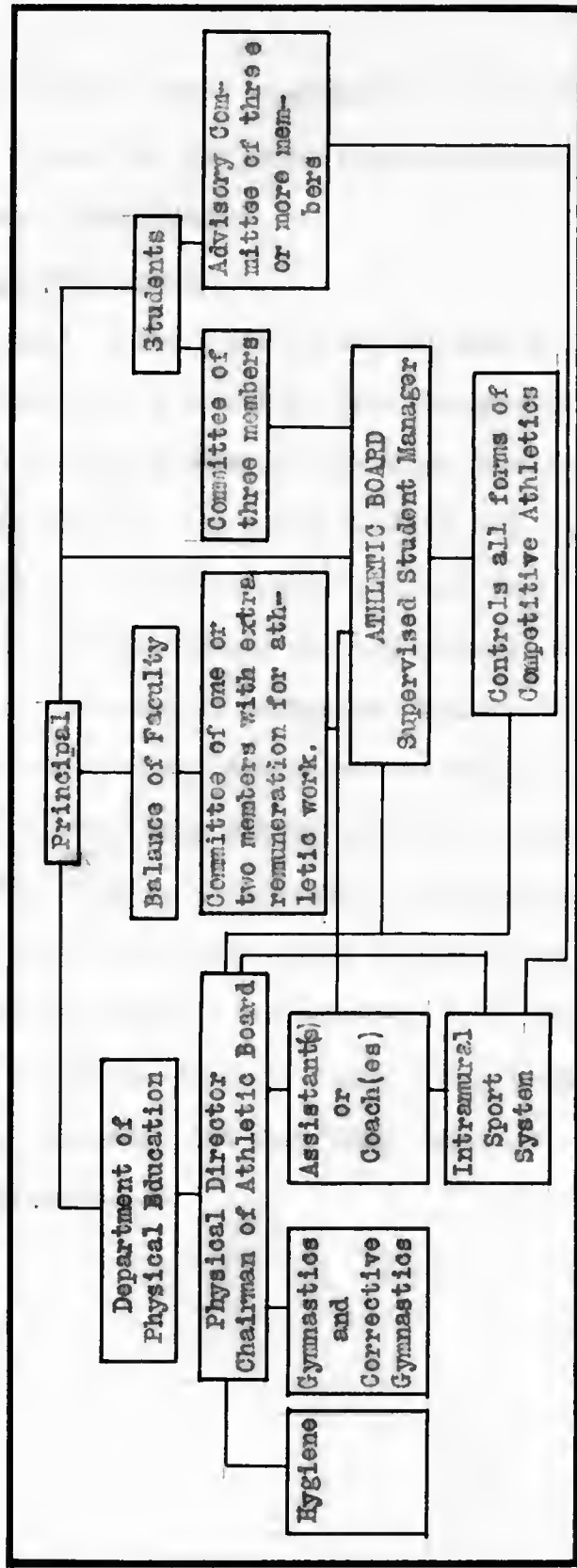


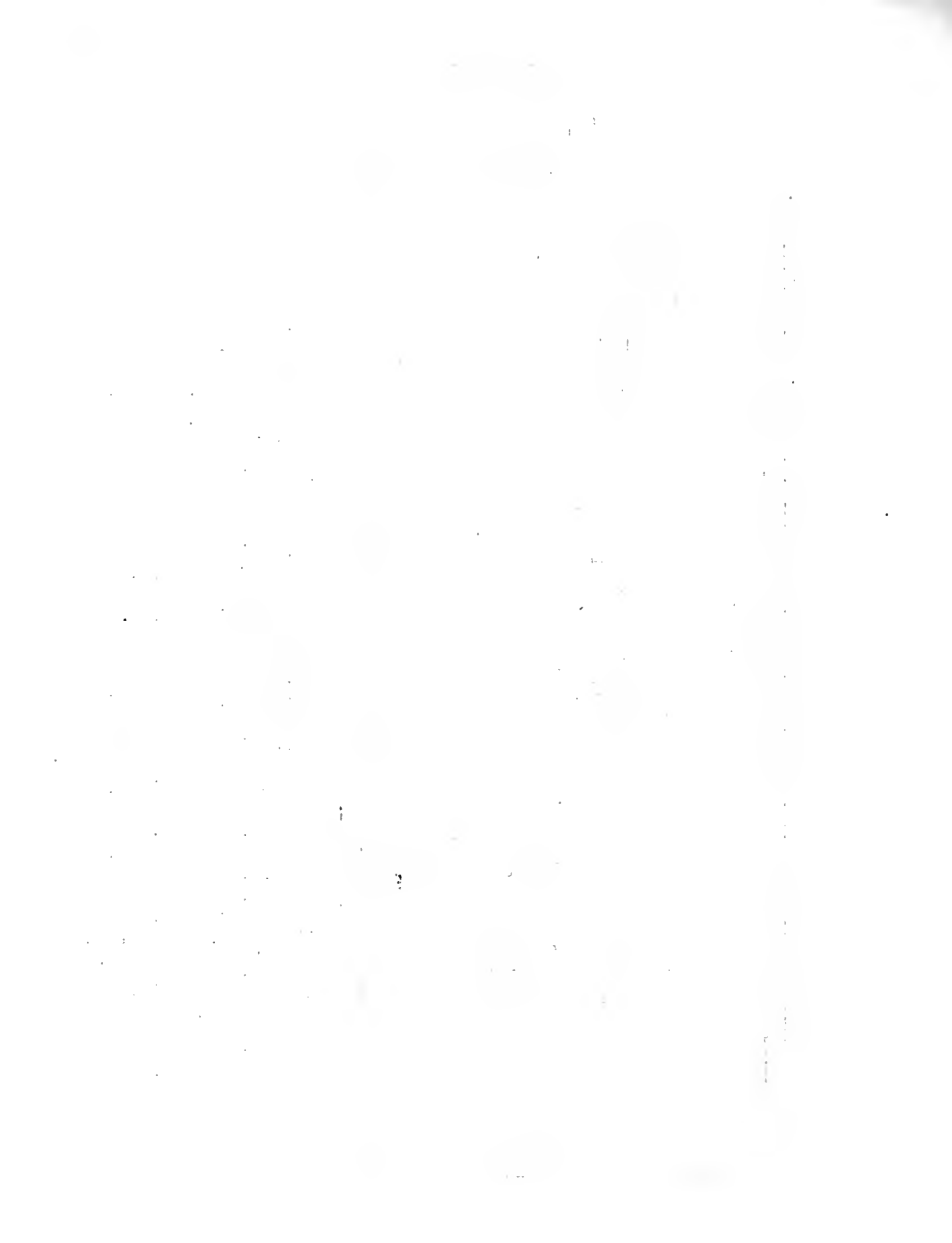
DIAGRAM SHOWING ATHLETIC SYSTEM FOR MEDIUM-SIZED HIGH SCHOOLS - 150 to 250 BOYS.



EXPLANATION OF THE ABOVE DIAGRAM.

This system differs from that of the large high school in that the assistants or coaches are faculty members teaching academic subjects but paid extra for serving in the capacity of athletic coaches. This is necessary because of budget allowances. These men should be selected for their previous ability in athletics and their special training in the particular sport or sports they coach. They are connected directly with the Athletic Board although it may seem advisable in particular communities to appoint other faculty members.

The Physical Director in this type of institution may coach several sports or all of them with the assistance of the faculty men selected. This is possible because of the size of the school. However, the Physical Director will have practically the entire responsibility of the gymnastic and hygiene work, so it is doubtful whether or not he may be able to assume entire charge of the competitive coaching.



scholar would be given a mathematics class to teach. We want men who know how to teach, know the educational principles involved and above all have sound moral standards.

#### The Small High School.

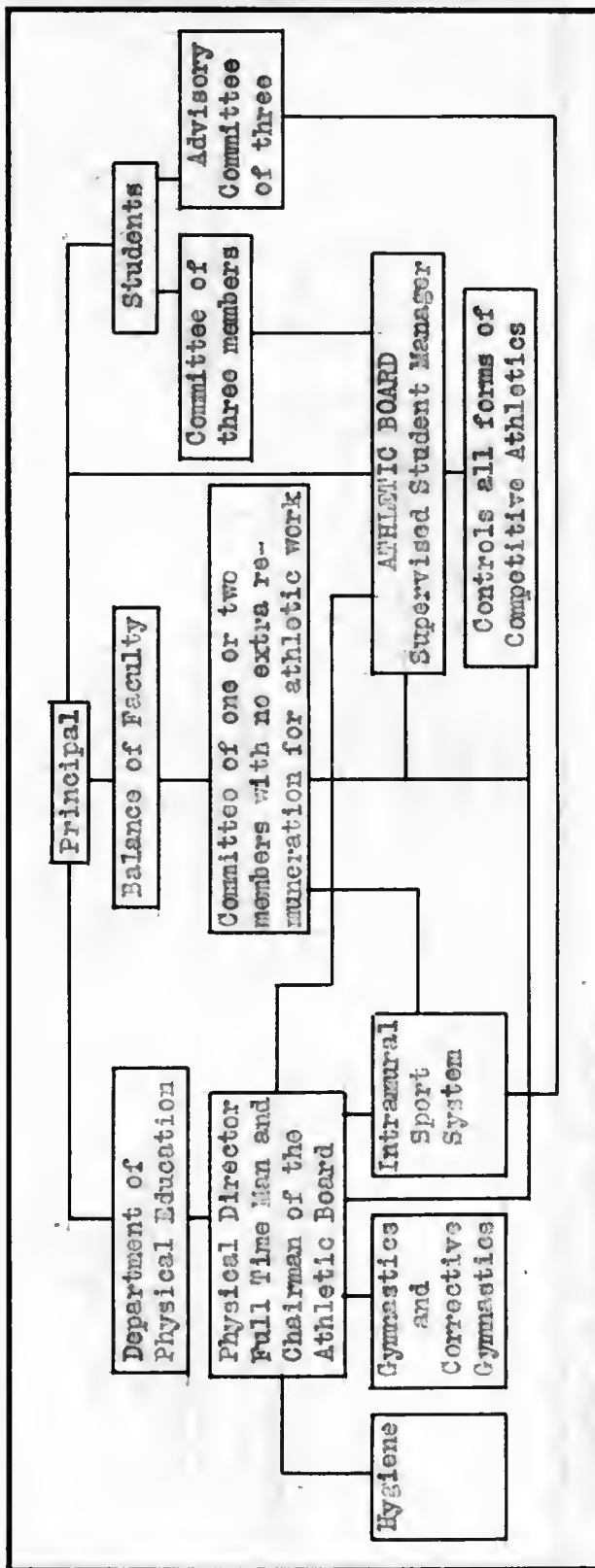
In small schools one man may be able to handle the athletic situation and of course in a school of only twenty-five or thirty boys we would not hope to find a physical director. Some faculty man must be paid extra to devote his time and energy to this work, or a physical director, who can teach other subjects, must be hired. But in a school of 75 to 125 boys it is as essential that a physical director be on the faculty as that there be a mathematics instructor. The average small school now pays an academic man an added salary to take charge of athletics and he apparently finds neither time nor opportunity to plan systematic intramural activities. This is unfortunate, especially in view of the fact that the small school has a large amount of play space and consequently the planning is materially reduced. One school at least in the group of fifteen small schools listed has seen the light. The principal and Board of Education are to be congratulated upon their foresight, study and investigation of the situation.





DIAGRAM SHOWING ATHLETIC SYSTEM FOR SMALL HIGH SCHOOLS - 25 to 125 BOYS.

FIRST TYPE.



EXPLANATION OF THE ABOVE DIAGRAM.

Here we have a scheme in which the Physical Director is a full-time man but his only assistance is of the volunteer type from generous faculty members. This man may assist with one or more of the competitive teams or with the Intramural Sport System. In general, however, the Physical Director cannot hope to accomplish much with volunteer service unless it be in the matter of coaching a particular competitive team.

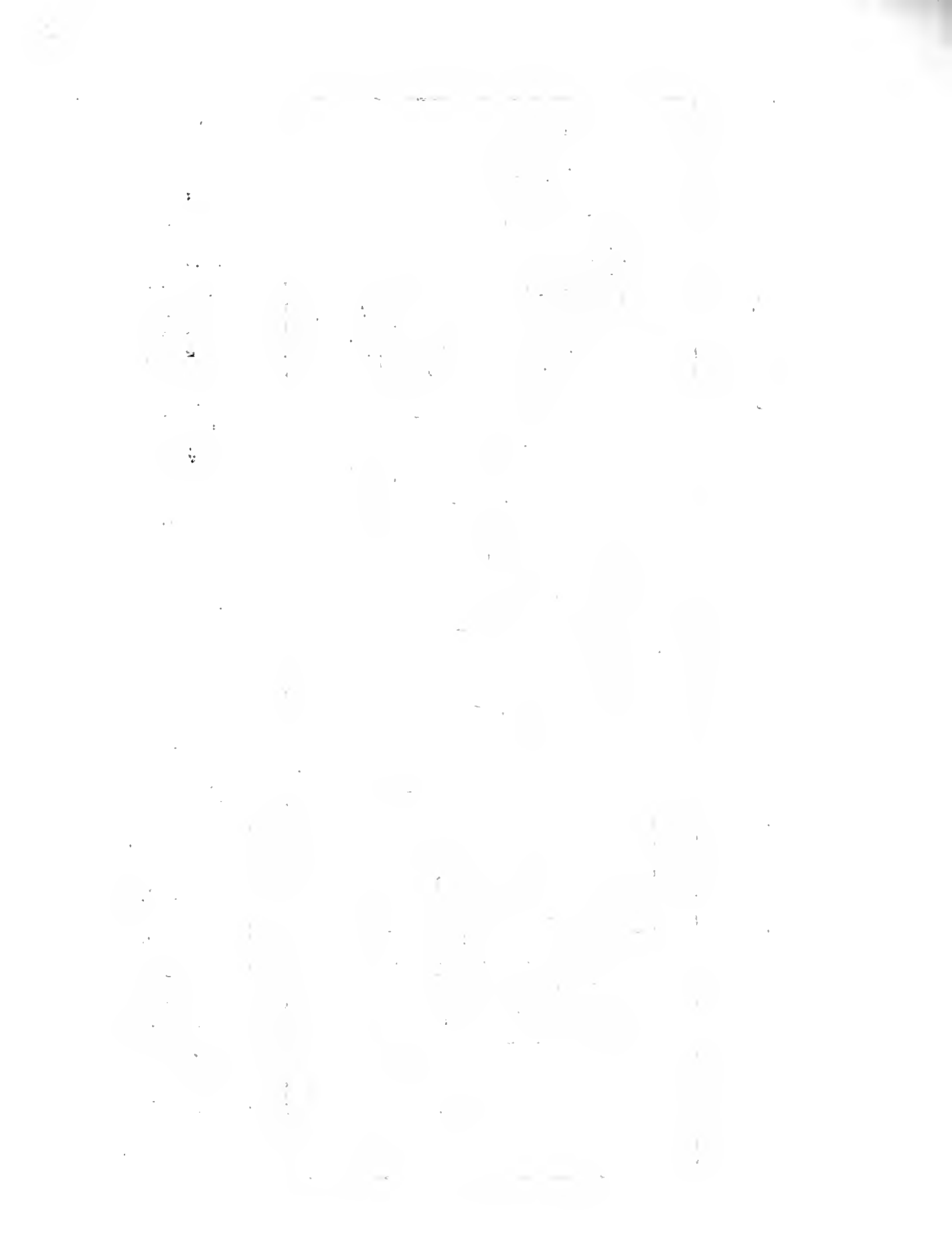
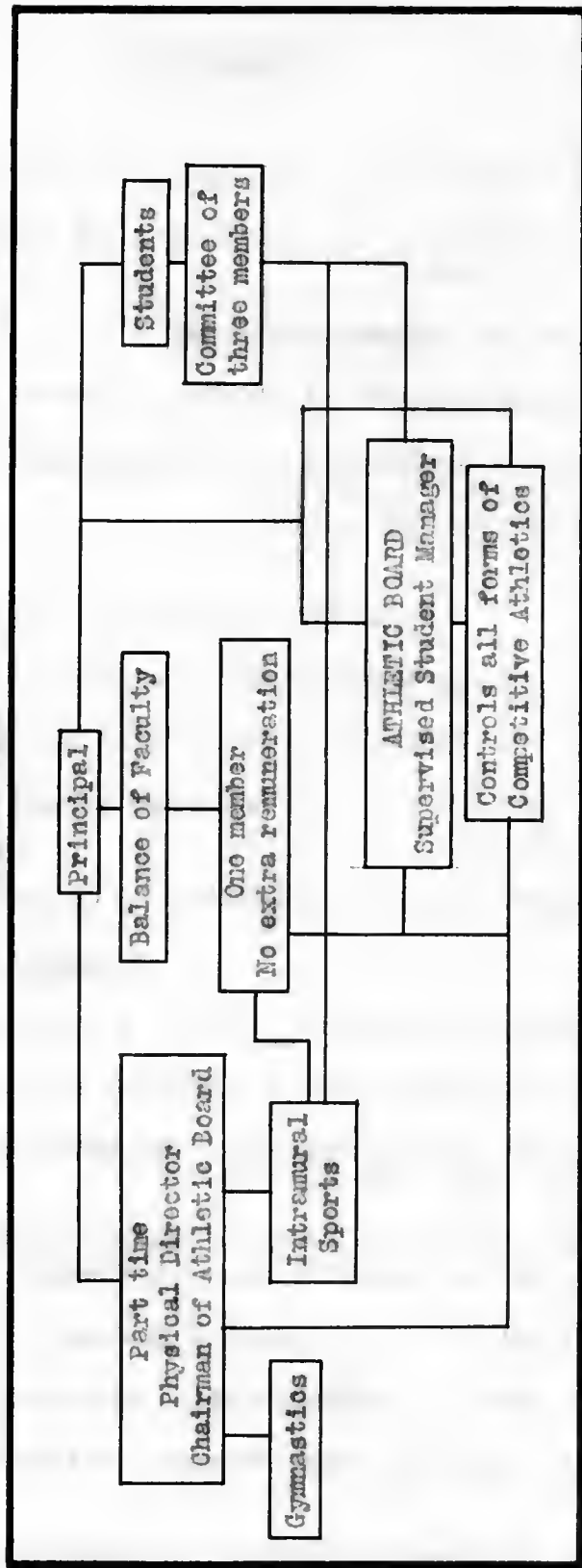


DIAGRAM SHOWING ATHLETIC SYSTEM FOR SMALL HIGH SCHOOLS- 25 to 125 BOYS.

SECOND TYPE.



EXPLANATION OF THE ABOVE DIAGRAM.

Very small schools cannot afford to have a full-time man as Physical Director and the best we may hope for is a part-time man, except in communities where several schools can club together. In this type the man in charge of gymnastics and athletics serves a good share of his time teaching academic subjects. He will be very fortunate to get the assistance of another member of the faculty. Often it is necessary for the Principal to lend a hand in coaching and promoting sport for sport's sake - in getting every boy in school to "play the game".

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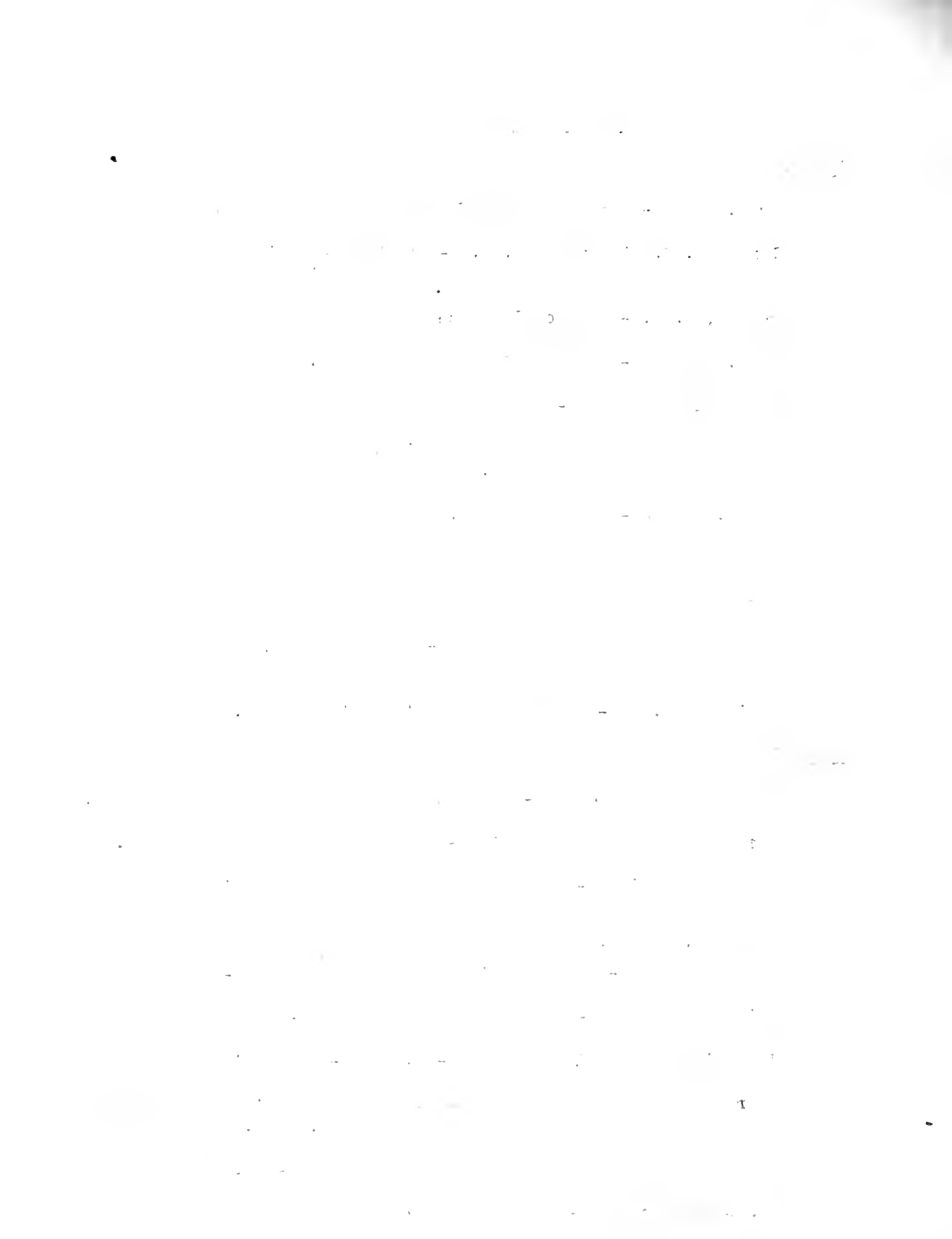
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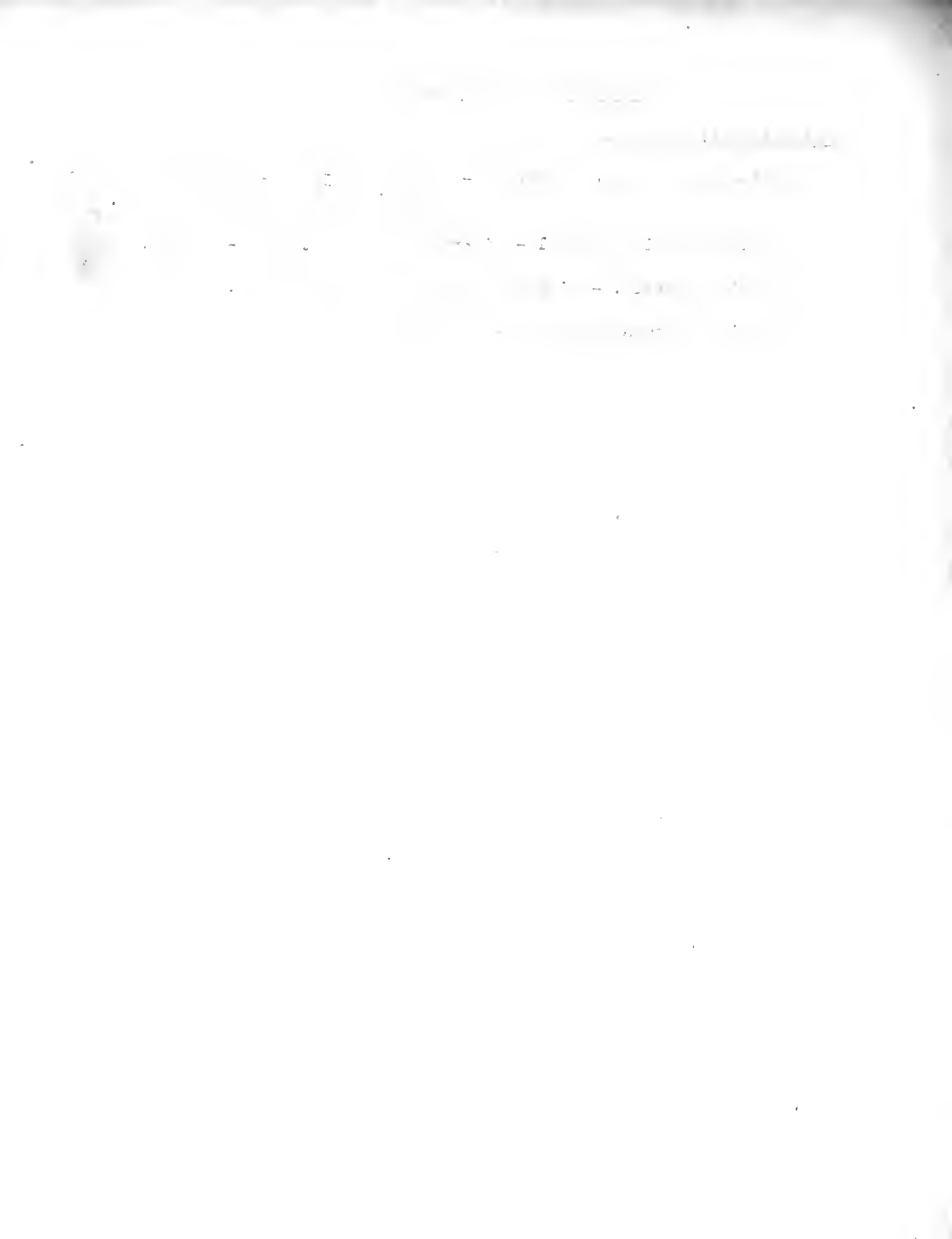
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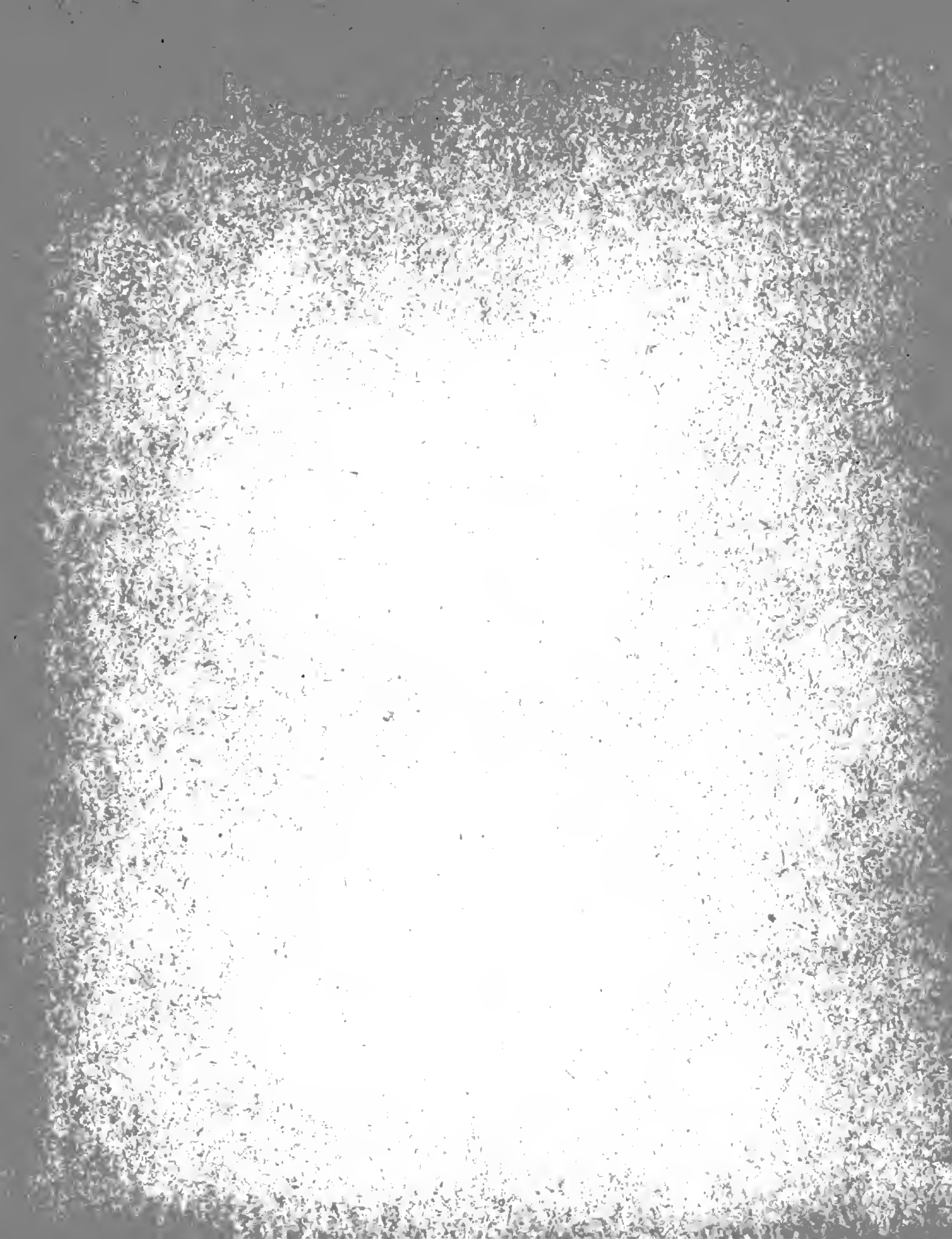
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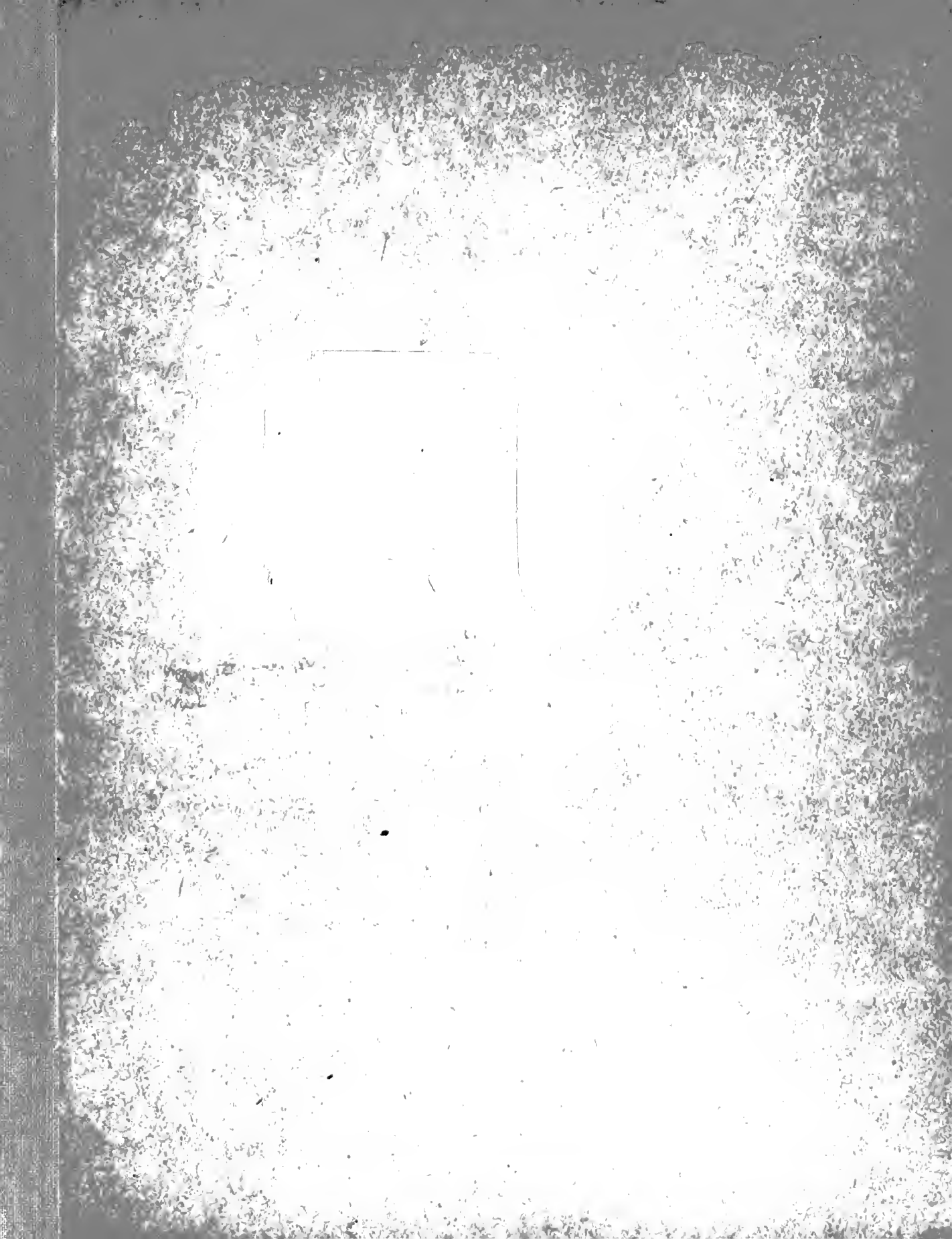
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