

wondrous knowledge that comes to men after years of squatting in the grand-stand, has asked me the same thing in a modified form,

How much figure does brainwork cut? I don't quite know myself. I do know that no pitcher, however powerful or agile, can hope to become a great performer without being thoroughly equipped "from the shoulders up." The steel arm is desirable, the good eye is even more desirable, but, without the little filling of gray matter that is popularly supposed to inhabit the skull, a pitcher might just as well pack his suit case and go back to the quaint little village where he was first discovered. It isn't the iron in the arm, because lots of longshoremen could snap a pitcher's arm in two with a single twist; it's the combination of brain and body, the perfect co-operation of mind and muscle, that makes a man a successful major league twirler.

Most pitchers who break into fast company and stay there by consistently demonstrating their ability, are men that went

through a long course of sprouts before they got anywhere. They, like hundreds of successful men in other walks of life, were forced to look, listen, and learn before they had anything like an

even chance to win their spurs.

Many things have been said and written about pitchers outguessing batters, and batters outguessing pitchers, and to tell the truth there has always been a question in my mind about the outguessing proposition. I have seen so many instances where guesses went wrong-so many hundreds of instances-that I am bout the last human being in the world to pose as an oracle on the subject of pitching psychology. Nevertheless, there certainly is a lot of psychology about pitching

a baseball. Granting that a pitcher needs something more than a clear head, it must be admitted that the successful pitcher is always a student. There are a hundred and one little things that every good twirler has in his repertoire, a hundred and one little things that the average baseball lover doesn't know anything about. I have always made it a practice, before going into a crucial series, to get some kind of authentic information about the strength or weakness of every batter slated to face me, and once I know positively that a batter doesn't

like speed, I feed him oceans of it. If I find that his weakness is a low curve, he gets that for a steady diet.

ARTHUR DEVLIN.

When we met the Athletics in the season of 1905. after having won the National league championship, I realized that a good part of the pitching burden would be on my shoulders, and I began making inquiries about the weak and strong points of the American league champions.

Monte Cross, who played on Connie Mack's infield in 1905, was known by me to be a dangerous hitter, though his average was not high. He was the kind of a kitter who was always bobbing up with a hit at a time when a hit meant

trouble, and just before the series started. I did a little quiet detective work through friends of mine who knew the game and knew Monte. I had been told that Monte's weakness was a high, fast ball, but when I talked to "Kid" Gleason of the Philadelphia Nationals,

Gleason told me that Cross had fought against and overcome his weakness, and had developed into a murderer of the high, fast delivery Keeping Gleason's advice in mind, I gave Cross nothing but low curves during the series, and had him helpless from the start. Had it not been for Gleason's tip, Monte's always dangerous bat might have caused trouble in that series, for there were some very close games before it was all over.

The greatest strength of a pitcher, aside from his control, is what the players call his "mixture." That means no more nor less than what the word implies-his variety of fast and slow balls, his serving of this or that curve. What we call the "change of pace," the delivering of a fast and then a slow ball with the same preliminary motions, and the mixing of a high

fast ball and a slow curve are the successful pitcher's best assets.

FRANK CHANCE.

Lovers of baseball have often asked me how I deal with a batsman whom I have never faced and about whose batting ability I know nothing. Every seasoned pitcher has been called on often enough to meet batters he never saw before, and in such pinches he must rely largely on luck. When I am facing a new batsman for the first time, I pay particular attention to two things-the position he assumes at the plate and the way he holds his bat. If, for instance, he holds his bat well up toward the middle there isn't much use of sending him speed. Batters of this type are always ready for speed and they can meet the fastest

ball a man ever threw. A low curve on the inside will do for a starter, and if such a batter goes after it and falls to connect, you have his "number." The batter who stands back from the plate with a long bat and a grip near the end is the one who can send a low

curve into the southeastern quarter of the adjoining section. While a batter may work hard and overcome a certain weakness, that does not necessarily mean that he becomes a great hitter. In centering his energies on overcoming his weakness

FRED CLARK,

of Pittsburg.

for a high ball he may lose his strength on low balls because he has been continually fed high ones by opposing pitchers. In that case I would try him on a low ball and if it was found that he could still hit that the only thing left would be a curve ball or change of pace. It is often the case that a pitcher cannot deceive a batter's eyesight but he can deceive him mentally. For instance, most any batter can hit a slow ball if he knows it is coming. The same is true in regard to a fast ball, but if he is expecting a fast ball and gets a slow one. a strike out or a weak grounder to the infield will be his best effort. Some batters,

few of the chosen, bave no weakness that the most studi-

ous pitcher can detect. Men like Hans Wagner and Lajole don't care much what the opposing pitcher has to offer.

MATHEWSON.

I have often been told by my friends that a pitcher is about 90 per cent, of the game, and have never failed to assure them that nothing could be further from the truth. A winning pitcher helps a baseball team a whole lot, of course, but there are eight other boys on that team, and nobody knows it better than the winning pitcher. The recent series between the Giants and Yankees will prove my point.

In that series I got away with every game in which I participated, but I won because I received magnificent support, both in the field and at the bat. Had George Wiltse been right, or had McGraw sent in Ames or Crandall, the story would have been the same if the support had been of the same splendid know just how they managed it, becaliber. The wonderful work of Devlin, Devoe and Doylethe wonderful work of the whole team, for the matter of thatmade defeat practically impossible. With that great machine working behind me and with the greatest manager of them all backing me up, I simply couldn't lose. That's how much a

pitcher is 90 per cent. of the game. As a matter of fact, it would be impossible to establish the mathematical relation of the pitcher to a ball club. Figures in baseball are often misleading. One pitcher may work brilliantly for 13 innings and have a 1 to 0 defeat marked up against his

record, while on the following day another pitcher may luckily win a 10 to 8 game. It is a matter of record that in the season of 1909, Leon Ames of the Giants, in finishing a 17 inning game and participating in two extra inning ties, pitched 30 consecutive innings without allowing a run and yet did not win one of the games,

From this it can be seen that the winning power of a team must depend largely upon its run-getting ability. To reach an estimate of value we will say

that offensive play is half the game. think that conservative. That would leave but 50 per cent., and the pitcher could not be all of that. I would say that about 30 per cent, of the strength of a ball club lies in the pitcher's box. No matter how effective a pitcher may be in the box he cannot win unless the team bats in runs behind him. It is true, however, that the work of a pitcher can have a very strong influence upon the work of the

rest of the team. Disgruntled fans frequently make the assertion that infielders and outfielders will not support certain pitchers. That idea is erroneous, Ball players always want to win, no

matter who is in the box. It is usually lack of control on the part of the pitcher that disconcerts or demoralizes the infield. Players lose confidence because they are uncertain as to what will happen next. The catcher may call for a "pitch-out"that is, a ball thrown wide of the batter, so that the catcher can have a clear throw to second to catch a runner who is about to steal. The infielders all see this signal and both the shortstop and second baseman leave their positions to assist in making the play. If the pitcher does not pitch-out, as expected, the batter may hit the ball through the spot left vacant and upset the whole team. Once they lose confidence in a pitcher in a game, it is very difficult to regain it. It is not that they will

not support the pitcher. On the contrary, it is the fault of the pitcher who will not give them a chance. If the pitcher has control everything works smoothly.

If it were true that pitching is 90 per cent, of the strength of a ball club, it would be logical to assume that the team having the best staff of pitchers would always win the pen-

nant. That is not true. The baseball reader who pays attention to records will notice that the teams which win the pennants always have several players who lead in their respective departments. And this does not necessarily in-

clude the pitchers. For instance, the Baltimore club, back in the early nineties, won three successive pennants with pitchers whose names can scarcely be remembered.

The backneyed cry of " What we need is pitchears" could well be changed to "What we need is hitters, base runners and field-Without them there can be no pennants.

JOE TINKER.

Some of the best pitchers ever connected with professional baseball have received bumps from sources so humble that any false esteem they may have held for themselves has vanished like the snows of last season. Cy Young the noblest old Roman of them all, has been beaten by village teams. The best pitchers of the world's champions, not long after they had trimmed the Cubs, were beaten by the unknown Cuban teams they faced during their late barn-storming trip. They pitched good ball, the kind of ball that would defeat any team if it came to a matter of whole season's record, but luck, the one thing above all others that makes baseball the thrilling and perfect game it is, decreed otherwise. There are times, you see, when all the science and all the outguessing in the world will not avail.

I shall never forget a trimming I got from a village team in Michigan. Just after we had defeated the Athletics for the world's championship in 1905, Frank Bowerman and I went on a hunting trip. As soon as the natives of Frank's home town, Romeo, Mich., knew that I was his guest, they came and begged us to do the battery work for the Romeo club in a game they were to play with the representing the adjoining club town. We agreed, and I am afraid that our willingness cost a lot of honest Romeo villagers everything except their family plate. The thought of defeat never entered their minds, any more than it entered ours, but the little rival towns club came over to Romeo and gave Messrs Bowerman and Mathewson, fresh from their big league triumphs, a touch of high life that they never forgot. They beat us 5 to 0, and I guess they are celebrating it to this day. I don't cause I was in perfect trim at that time.

I had everything, as we say in professional circles, and they hit everything I had. I didn't mind it much myself, but I felt sorry for poor Bowerman. He had to keep on living there, and I didn't.

The real test of a pitcher's ability arrives when the opposing team gets men on bases. His responsibility is increased while his freedom of pitching motion is restricted. He must watch the base runner constantly and at the same time must

deliver the ball to the batter with the least possible swing of the arm. In other words, he can't "wind up." Some pitchers find it difficult to get as much speed, curve or accuracy with their usual swing. This affects some pitchers mentally, as the curtailment of physical effort prevents them from concentrating their mind on the man at the bat. At the same time the base runners, and frequently the coachers, are constantly trying to annoy

them. To protect himself the pitcher must try and detect some action on the part of the base runner which will indicate when he is going to attempt to steal the next base. In this he is materially assisted by the catcher. Once the pitcher or the catcher discovers when the runner is going to start the remedy is simple. Frequent

JAM CRAWFORD,

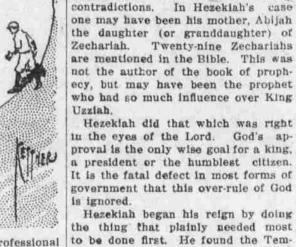
throws to the base will prevent the runner from getting too much of a lead, and when he does start, the ball is pitched out of reach of the batso that the catcher can have a clear throw to second.

While the pitcher is watching the base runner he knows that the base runner is also watching him, in an effort to ascertain whether the ball is to be delivered to the plate or to the base. Therefore, no preliminary movement on the part of the

The tremendous popularity of the

so much, but I can think of many other callings and many other pastimes

to win or lose as a gentleman should, and that is a very fine



HEZEKIAH'S GREAT PASSOVER Sunday School Lesson for June 11, 1911 Specially Arranged for This Paper

LESSON TEXT-2 Chronicles 30. MEMORY VERSES-18-20. GOLDEN TEXT-"Man Looketh on the Outward Appearance, but the Lord Look-th on the Heart.-I Sam. 16:7. TIME-Beecher's Dates for the Acces-sion of Jotham, Ahaz and Hezekiah ure R. C. 754, 738 and 723, Hoshea becoming king of Israel in B. C. 726. Hastings gives the dates as B. C. 749, 741, 727 and

PLACE—The temple in Jerusalem. PROPHETS—Hosea, Micah and Isaiah.

Hezekiah was the good son of a bad father, Ahaz; and Ahaz was the bad son of a good father, Jotham: and

after the good Hezekiah came his bad son, Manasseh. But there must have been reasons back of these seeming

(Hoshea) 730.

the thing that plainly needed most to be done first. He found the Temple, the sacred meeting place of God and man, with its doors closed by Ahaz, its lamps out, its altars cold, its floors and hangings covered with dust and dirt. Therefore the young king summoned the priests and Levites to the court on the east of the Temple opposite the closed porch or entrance, and in a frank and noble address declared his conviction that all the national woes had their origin in a neglect of the worship of Jehovah, and his determination to make a new covegant with the Lord. Then he bade them, as their first task, to cleanse the Temple thoroughly.

The Second Step the Worship and Praise .- Thus far the priests and Levites alone had been purified. Now the royal house and the people were to be formally reconciled to Jehovah. How was this done? Hezekiah gathered the chief men of Jerusalem, who brought bullocks, lambs, rams, and hegoats for a sin offering, seven of each. The city rulers laid their hands upon the animals, thus identifying themselves with them. Then the priests killed the animals and sprinkled their blood before the veil in the Holy Place and upon the altar of incense, pouring out the remainder at the base of the altar of burnt offerings in the court before the Temple. The fat of the offerings was burned on the altar of burnt offerings, and the flesh was afterwards eaten by the priests. "HONUS" WAGNER It was a mark of the new national feeling that arose during Hezeklah's reign that this offering and those that followed were not made for Judah alone, but for the Northern Kingdom as well.

The Third Step, the Wide Invitation.-What was the next step in the great reform? The holding of the national feast of remembrance of God's goodness, the passover. This should have been celebrated in the first month of the year, Nisan, corresponding to our April; but because the short arm motion as they do with not enough of the priests had been purified and because of the time required to gather the people, it was decided that the exigency warranted the postponement to the next month, lyar or May. As the reform had widened from Hezekiah to the priests and Levites, then to the chief men of Jerusalem, then to the whole congregation of citizens, the next step was to extend it to the entire nation, from Beer-sheba, even to Dan.

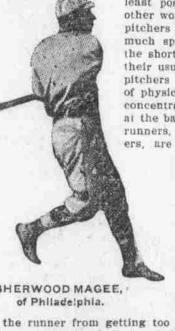
The Fourth Step is the Great Passover.-What further purification was needed before the passover could be celebrated? Jerusalem was full of heathen altars "in every corner," and these were torn down and the fragments cast into the Kidron.

The Fifth Step is the Generous Giving.-What other illustration of their zeal did the people give when the passover was completed? Their new ardor for Jehovah blazed out in a burning indignation against the foul idols which they had been worshiping. It was as when "Peter the Hermit aroused whole multitudes to the wildest enthusiasm for the rescue of the Holy Sepulcher, or even the dour Scotch Lowlander blazed up like an excitable Celt at the initiative of Jenny Geddes. How much more these flery Orientals? Jerusalem had been freed from idols; why should the country districts still be polluted?" Thus the people swept like a flood over Judah and Benjamin and the neighboring Ephriam and Manasseh. They broke the heathen "images" or pillars, cut down the "groves" or poles set up as symbols of the licentious Asherah, and overthrew the idolatrous hill sanctuaries and their altars.

Reforms must be thorough, if they are to be permanent.

What was the last step in Hezekiah's reform? The step which every reform must take before it is convplete, that of permanent organization. The secret of Hezekiah's power over men and success in the service of God? It is expressed in the noble words with which the chronicler closes his account of the great refermation: "In every work that he began in the service of the house of God, and in the law, and in the commandments, to seek his God, he did it with all his heart, and prospered."





pitcher must betray his intentions. George Van Haitren, the famous base runner of his day, once told me that he could tell to a certainty when certain pitchers were going to deliver the ball to the batter. This enabled him to get a running start and many times the poor catcher was blamed for allowing a stolen base, when in fact the pitcher was unconsciously at fault. John McGraw, manager of the Giants, spends several weeks each season in

teaching his young pitchers to overcome that kind of a weakness. national game-its popularity is growing every year-means that in the years to come there will be hundreds of baseball stars where there are dozens now. Every healthy boy has it in him to become a good ball player, though he may never care to follow the pastime professionally. Being a professional player myself, I may be over-fond of the game to which I owe

of Detroit. that a boy might better shun. Baseball is always played out in the sunshine, where the air is pure and the grass is green, and there is something about the game, or at least I have always found it so, which teaches one how