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The SCIENCE of DRAW POKER

A Treatise comprising the

ANALYSIS of PRINCIPLES
CALCULATION of CHANCES
CODIFICATION of RULES
STUDY of SITUATIONS
GLOSSARY of POKER TERMS

Necessary to a comprehensive understanding of the great American Game

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THERE is no reliable information to be obtained as to the origin of the game of Draw Poker. It has a slight general resemblance to several other games which have been played for an indefinite time, but none of these others has ever attained much vogue.

It may be said without fear of contradiction, however, that it is an American game, though it is now played all over the civilized world. Its rules rest upon no original authority, since the inventor of the game is forgotten; and the game itself has been modified and improved from time to time for at least two generations past, until now it is believed to have attained a practically perfect symmetry. The various changes made in the time mentioned have all been practical applications of the underlying principles of the game; and being adopted in the first place by some one club, or circle of players, have been gradually recognized by other players and incorporated into their rules of play, until there is now practical unanimity among all poker players on all the essential points of the game.

The literature of Draw Poker is already voluminous, but up to the present time no effort has been made to present the entire subject in a comprehensive form, embracing not only the fundamental principles of the game, but also the most approved methods of play as finally accepted by the best players throughout the country.

This volume is offered as such a contribution to the devotees of the game. The author claims no authority be-

yond a knowledge of the principles of the game and of the rules that are observed by the best players. When these rules conflict, even in minor particulars, that one has been selected which is most symmetrical and best conforms to the logic of the game, and it is confidently believed that the most scientific players will be the first to recognize the accuracy of the work. The author has originated nothing, but has collated all that has stood the test of actual play among experts.

Description

of the Game

What Draw-Poker Is.

THE game is one in which a number of players each receive five cards out of a standard deck of fifty-two, obtaining them in regular order and in strict accordance with prescribed rules for dealing. After receiving and examining their cards they proceed to bet on what is called the value of the cards they hold, and the player who holds the most valuable ones, or who proffers a bet which no other player will cover, wins all the money which has been wagered on the deal.

All rules in the game are founded on the principle that each player shall have exactly the same chance to hold valuable cards, and exactly the same opportunity to bet on them that every other player has. Whatever advantage one has over another comes from his relative position at the table, and passes from one player to another in regular rotation, so that each one enjoys it in turn.

The value, so-called, of the hands depends entirely on the rarity with which the particular combination of five, held by the player, occurs in the 2,598,960 possible combinations of five that can be found in a deck of fifty-two cards. It is governed, however, by the arbitrary values of the cards themselves, which are fixed as they are in whist, excepting that the ace may be counted as either the highest or lowest of the thirteen cards in the suit, according to the desire of the player holding it. The values, therefore, of individual cards rank as follows: Ace, King, Queen, Jack, ten, nine, eight, seven, six, five, four, three, two, ace. Suits are of equal value.

This is all there is to draw-poker, but within this limit is an almost infinite variety. No combination, however, nor any situation in the game is possible, which is not governed by the principles established and by the rules applied in draw-poker.

How the Game Is Played.

DRAW-POKER is played by any number of persons from two to eight, or even nine. With less than four players, however, the game is likely to be uninteresting, and with more than seven it is cumbersome, because of a delay which frequently occurs in the deal. Five or six players are best.

There can be no legitimate partnerships in the game. Each one plays for himself.

The sole object of the game is betting on the comparative merits of the cards held by the players. Each one bets on his own hand, as much or as little as he pleases, under the rules, and the winner in each deal takes all that has been wagered on the hands in that deal.

For convenience in betting, chips are commonly used, though the game can be played without them, each player being provided with coin or bills. Chips, however, are regarded as essential, and without them the game is likely to be greatly hindered.

Before dealing the cards, each player buys as many chips as he desires from the banker, paying for them in cash. The banker stands ready at any time to redeem these chips at the same price at which he sold them.

The players then cut for the deal, the low card, as in all games in which a full deck of fifty-two cards is used, giving the deal. The dealer then shuffles the cards. Any other player in the game may demand the privilege of shuffling, but the dealer has the last shuffle. He then pre-

sents the pack to the player on his right, who is called the pone, to be cut. In cutting, at least five cards must remain in each packet, in accordance with the rule that not less than a complete hand shall be divided from the remainder of the deck.

Before the deal, the player on the left of the dealer, who is called the age, places an ante, or blind, in the centre of the table, as the beginning of the pot that is to be played for. This is the only bet that is compulsory in the game, and the age, who is obliged to make it, enjoys, in compensation, a certain privilege which will be described presently.

The amount of the blind is usually one or two white chips, "two calling five," or requiring three more to fill, when it comes to the betting, as will be described presently. The blind, however, may be of any amount desired by the age, up to one-half of the limit agreed upon for the game. The player on the left of the age has the privilege of straddling, or putting up twice the blind, providing he does it before the deal. If this is done, the next player to the left of the one who has straddled begins the betting after the deal, unless he has straddled the straddle, in which case the next player to his left begins. But no straddle can be more than one-half the limit.

The dealer then gives one card at a time to each player at the table in regular succession, beginning with the age and continuing around toward the right, until each player, including himself, has five cards. The remainder of the pack he keeps in reserve.

The next step is for each player to decide whether he desires to bet on his hand. The first to declare his intention is the one on the left of the age or on the left of the last player to straddle if there has been a straddle. If he decides to risk his money, he must put twice the amount of the blind or last straddle in the pot. Should he decline

to play, he must place his five cards, face down, in front of the age, as the beginning of the discard pile. If he bets, he must, as was said, put up twice as much as the age or last straddle put up before the deal, but he may, if he choose, make a further bet at the same time, of any amount he likes, up to the limit. This is in accordance with the general rule that any player, whose turn it is to bet, may increase the bet if he so desires at the same time that he puts up the money necessary to maintain his position in the game.

After this player has signified his intention, either by throwing down his cards or by betting, the next player does the same. If he plays, he must put up an equal amount with the last player, and, if he chooses, he may raise, according to the same rule. One point must never be overlooked. It is essential to proper play that no player shall make a bet or throw down his cards until after the player next preceding him has done one or the other. Playing out of turn is a violation of rule. It is also unfair, and always makes confusion.

All the players, in turn, signify their intention as directed until it comes to the age. He then does exactly as the others have done, with the exception that in putting up the same amount that the last player before him has bet, he is credited with the amount of his original blind. Providing no one has raised up to this time, it is enough for him to put up the same amount that he did at first, each of the others having simply doubled that amount. In such case, it is obvious that each player who stays in will have contributed equally to the pot. In case of a straddle the first round continues till each player has an equal amount in the pot.

If any player, however, has raised in this betting before the draw, it is also obvious that the age must put up,

not only an amount equal to his blind, but an amount in addition that shall be equal to any and all raises that have been made. Should the age refuse to play, and throw his cards in the discard pile, he forfeits the amount of his blind, but is not compelled to put up any more.

If there has been any raising each player continues to make good the full amount put up by the player next preceding him, at the same time raising if he wishes to, till each one who stays has an equal amount in the pot with each other one who has stayed. The pot is then complete. Any player who refuses to make good to the amount of the preceding player's bet forfeits his claim to the pot and loses any money which he may have already contributed.

Next comes the draw. Beginning with the age each player in turn tells the dealer how many cards he desires to draw, at the same time throwing into the discard pile as many cards as he calls for out of the hand originally dealt to him. He may call for as many or as few cards as he desires, up to five. In other words, he may keep any part of his original hand that he may want, or he may take an entire new hand.

The dealer must satisfy each player in turn before dealing to the next, and it is the player's business to see that he is satisfied at the time, before looking at the face of the cards he draws, and before allowing the dealer to go on to the next player. If he receives too many or too few cards, and does not speak till the dealer has begun serving the next player, his hand is foul and he has no remedy. If he has more than five cards he cannot play them, but loses all claim on the pot. If he has too few cards, he may, according to the usage in some clubs, play them as a complete hand, but he must announce the number which he actually holds before betting on the hand. In such a case he cannot hold a Straight, a Flush, or a Full. The latest usage, how-

ever, is to declare any hand foul which does not consist of five cards — no more, and no less — and this is logically the correct rule, since it is the player's business to see that he gets five.

Rules are given elsewhere, governing the accidents which sometimes result in the facing of cards in the deal or in the draw.

In supplying the draw, the dealer serves himself last and must announce how many cards he draws, at the time of taking them.

All the players being supplied, the final betting begins. The age, as compensation for his compulsory blind, has the last say, consequently the first to bet is the player on the left of the age. This holds good even if the age has passed out, as *the privilege of the age never passes* to another player.

If the player to the left of the age has passed out, the one on his left bets first, no other player being allowed to bet or throw down his cards until his turn has come. In betting he places in the pot as many chips as he chooses, up to the limit, and if no one else puts in an equal amount afterward, he takes the pot without showing his cards, as there is no contest.

The next player, if he contests, must put up as much as the first one has, and he may raise, if he chooses, any amount up to the limit. The other players follow in turn, each putting up the same amount as the preceding player, and at the same time raising if he desires to do so, till each player who remains in has the same amount in the pot with each other player who remains in, when the betting is closed.

All that remains is the showdown. If only one player has remained in till the end, there is no showdown, but the last bettor takes the pot without telling what he holds. If, on the other hand, more than one player has stayed, each

one who is still in lays his cards face up on the table, and the one who has the best hand takes the pot.

The deal then passes to the player who was the age; the one on his left becomes the age, and another pot is made and played for as before. This is the entire game of Draw Poker excepting when jack-pots are played.

Hands.

A HAND, in Draw Poker, consists of the five cards held by a single player before or after the draw. Its value depends upon the combinations formed by the different cards.

The highest hand in the game is the Royal Flush. This consists of Ace, King, Queen, Jack and ten of a single suit. The Royal Flush cannot be beaten, but can be tied by a Royal Flush of any other suit, and as there are four of these hands in the deck — one in each of the four suits — it follows, necessarily, that no one hand can present a mathematical certainty of winning.

The next highest hand is the Straight Flush, which is not a Royal. That is, five cards of one suit in sequence, as the five, four, trey, deuce and ace of hearts, or the King, Queen, Jack, ten and nine of spades. The relative values of different Straight Flushes are determined by the denomination of the cards. One beginning with a Jack beats one that runs from a ten downward; and one that contains an eight beats one that runs no higher than a seven.

Next highest comes Fours. This is a hand containing four cards of the same denomination, as four Aces, four tens, or four deuces. As in all other hands the cards of higher denomination beat those of lower. Four eights beat four sevens; four Aces beat four Kings, and so on.

Next in value comes the Full, which is often called a Full Hand or a Full House. This consists of three cards of one denomination and two of another, as three Aces and two sevens, or three deuces and two tens. The triplets

being the more valuable part of the hand, determine its value regardless of the denomination of the pair. Thus, three treys and a pair of fours, called a Trey Full on fours, beats three deuces and a pair of Aces, called a Deuce Full on Aces.

The next hand in value is the Flush. This hand contains any five cards of one suit, unless they are in sequence, when the hand becomes a Straight Flush or a Royal Flush. Thus, the Ace, King, Queen, Jack and nine of diamonds is a Flush, and is beaten by any Full, but if the nine should be a ten the hand would be a Royal and could not be beaten. As between two Flushes the winning is decided by the highest card. Thus, the Ace, seven, five, four and deuce of one suit will beat the King, Queen, Jack, nine and seven of one suit. In case the leading cards of two Flushes tie, the next highest card in either hand decides, and if these tie, the next highest decides, and so on. Thus, as between the King, nine, seven, five and deuce of diamonds, and the King, nine, seven, five and trey of clubs, the club hand wins.

Next highest is the Straight. This is a hand containing five cards in sequence, but of different suits, as the Ace of diamonds, King of hearts, and Queen, Jack and ten of spades; or the seven, six, five and four of clubs and the trey of hearts. The relative value of two Straights is determined by the denomination of the cards. One beginning with a Queen beats one beginning with a Jack, and so on, and two Straights headed by cards of the same denomination will tie, regardless of the suits represented, since the four suits are of equal value.

The hand ranking next below the Straight is Threes, Three of a Kind, or Triplets. This hand contains three cards of the same denomination, as three Aces and any two other cards not a pair, or three sevens and any other two cards not a pair. Threes cannot be tied, and rank ac-

cording to the denomination of the triplets, regardless of the denomination of the other two cards.

Next comes Two Pairs, as two Aces, two fours and a Jack; or two sevens, two fives and a nine. As between two hands of this rank, the highest pair decides the value. Thus, sevens and deuces beat sixes and fives; Aces and treys beat Kings and Queens. In case the highest pairs in the two hands tie, the lower pair decides. Thus Kings and sevens beat Kings and sixes. In case both pairs tie, the denomination of the odd card decides, and in case the two hands are alike throughout in denomination, the hands tie.

Next in rank comes a Pair. This hand contains two of one denomination, as two Kings, or two sevens, and three others of different denominations. Pairs outrank one another as single cards do. If there be a tie between the pairs, the highest card among the odd ones decides the value of the hand. If the highest odd cards tie, the next highest decides, and so on.

The lowest hand contains none of these combinations and is not even distinguished by a name of its own, but is commonly designated by the name of the highest single card in it. Thus "Ace high" would mean a hand containing an Ace and four other cards no two of which were a pair; "Jack high" would be a Jack and any four lower cards no two of which were a pair. Between such hands the highest card decides the value of the hand. Thus Ace high beats King high; ten high beats nine high, etc. If the highest cards tie, the next highest decides. If these also tie, the next highest decides, and so on.

Rules

of the Game

Rules of Play.

THE rules in Draw Poker relate mainly to:

I. Preliminaries, including the blind and the straddle.
II. The deal.
III. Betting before the draw.
IV. The draw.
V. Betting after the draw.
VI. The showdown and settlement of bets.
VII. Jack-pots.
VIII. Errors.

I. Preliminaries.

In taking seats at the table, if there is a choice of position, it should be decided by cutting the cards, the low card winning, and Ace being always low in the cut.

Cards and chips are necessary. The cards are a standard whist deck of fifty-two. The chips are counters of different colors representing different values, as agreed upon. Usually the white chips are smallest in value, the reds next, and the blues next. Yellow chips are also used for larger amounts. In a small game the white may be one cent, the red five, and the blue ten. In a larger game the white might be five cents, the red twenty-five, the blue one dollar, and the yellow five dollars. When the game is still larger the white are usually one dollar, the red five, the blue twenty-five, and the yellow one hundred. There is no arbitrary value. The amount represented by the different chips is agreed upon at the beginning, and one person is chosen as banker for the game. He takes possession of all

the chips at hand and sells them at the price fixed, redeeming them at the same price whenever any player may demand redemption, and in any event redeeming all that are outstanding at the end of the game.

One most important detail must be agreed upon before the play begins. The game is either a limit, a no-limit, or a table-stakes game, and the decision as to which it shall be must be made before any bets are made. If it is to be a limit game, the amount of the limit is fixed by agreement, and no player can make any single bet to exceed the amount required to come in, plus the limit. That is, if no one else has yet betted, he cannot bet more than the limit, but if he has to see some one's else bet, he may see it and raise to the amount of the limit, but no more.

If the game has no limit, he may bet as much as he desires, but in that case, any other player who is unable to see the bet that is made, may call for a show for his money. To do this, he must put up all he has, at the same time declaring that he has no more. The total amount staked by the player who calls for a show for his money together with an equal amount for each other bettor must then be put together on the table. This constitutes the original pot, to which all the contributors have an equal claim, the best hand among them taking the pot when the showdown comes. If, however, the other players than the one calling for a show, desire to continue betting among themselves on the merits of their hands, they can do so, keeping their further bets separate from the original pot. At the showdown, if the man who has called for a show holds the best hand he takes the original pot only. The outside bets go to the player holding the next best hand. If, however, the one who called for a show is beaten, the best hand takes all the money.

The table-stakes game is made by each player putting

in sight on the table in front of him as much money as he desires to play for. There is no limit rule excepting that no player can add to the amount in front of him while a hand is being played, and any player may at any time call for a show for all he has in front of him. If he loses what he has originally displayed as his stake, he must retire from the game, unless the other players consent to his producing another amount which he is willing to play for. In that case, he declares this further amount to be his stake, and reënters the game. He may also declare additional money in any time he chooses, by the consent of the other players, provided there is no play going on at the time. He may not, however, look at his cards and declare more money in after seeing them.

The player on the left of the dealer has the advantage of the age, or the privilege of the last bet. This he purchases by putting a blind in the pot before the deal. The blind is the only compulsory bet in Draw Poker, and is made in order that there shall be no futile deal, as there might be if there were no money on the table to play for. The usual blind is one white chip, but it may be any amount up to one-half the limit fixed for the game. A very common practice is for the age to put up a blind of two white chips, saying "Two calls five," meaning that the next player, if he desires to bet, must put up five chips.

This blind, or compulsory bet by the age, is all the betting that is requisite before the deal. The player next on the left of the age, however, has the privilege of straddling the blind if he chooses to do so. To straddle is to put into the pot before the deal the amount called for by the blind. If it be the ordinary blind of "one calls two," two chips constitute a straddle. If the blind be "two calls five," the straddle is five chips. The effect of the straddle is to make the next player put up double the amount of the

straddle before drawing cards. No player can straddle after seeing any of his cards.

If the player having the privilege elects to straddle, the next player to him may straddle his straddle, by putting up double the amount of the first straddle. The next player may straddle again in turn by doubling the amount put up by the last player, with the restriction that no blind or straddle can be put up which will make the bet called for after the deal larger than the limit agreed upon for the game. And no straddle can be made by any player out of his turn. If the player whose privilege it is does not straddle, the next player may not do so.

The cards must now be shuffled thoroughly by the dealer. Any player at the table may demand the privilege of shuffling also, but the dealer should shuffle last. After the shuffle he offers the deck to the player on his right, the pone, who cuts them, or touches the top card to signify that he does not desire to cut. If he cuts, he must cut so that there are at least five cards in each division of the deck.

II. The Deal.

The dealer then serves the cards one at a time to each player in turn, including himself, beginning with the player on his left, and continuing to the right around the table till each player has five cards, the dealer taking the last.

Any error in the deal must be corrected before the players lift their cards from the table, and before the deal has been completed. If it cannot be rectified without confusion, and without altering the sequence of the cards as they should fall to the several players, it is a misdeal. The cards must all be shuffled and cut again, and the same player deals. This is because the dealer's error cannot be held to deprive the age of his privilege. A variation from

this rule is made when jack-pots are played. In that case a misdeal calls for a jack-pot, and the deal passes to the next player.

If it should happen that the error be not discovered until after the players have looked at their hands, the deal stands, but any player who has received too few or too many cards loses his chance to play in that deal. If he has already put money in the pot, he loses it. It is his own error that he has picked up too many or too few cards, and he is the only sufferer.

An exception to this rule is frequently made when one player picks up a card belonging to another player together with his own five cards. By agreement between the two, the player with four cards may draw one from the other's six, and the two hands may be played.

In strict play, this exception should not be made in favor of the player who makes the error, since he has no right to pick up six cards. It is frequently allowed, however, as a strict adherence to the rule seems unduly harsh in such a case, unless the error is considered to have been made intentionally. It would seem that a fair remedy for this difficulty would be to declare a misdeal and deal the cards anew, but this would be obviously unfair to any player who might have received a good hand. The only proper course is to declare the two hands foul. The player who picks up a wrong number of cards must suffer for his own error.

In case a card is faced by accident in the deal, the player to whom it was dealt must accept it, but if more than one card falling to any one player is so exposed, it is a misdeal. The same dealer must deal again, because no player can be deprived, by the error of another player, of the privilege of the age which falls to each one in rotation.

Any error in the deal not described in the preceding

paragraphs, constitutes a misdeal. The same player must deal again, unless by agreement a misdeal calls for a jackpot. Where the players are strongly in favor of jacks, and seek pretexts for making them, a misdeal is commonly reckoned as such a pretext.

Strictly speaking, it is an error for the dealer, having completed the fifth round, to start on the sixth, and this logically makes a misdeal, if even one card too many is separated from the deck. Players must agree among themselves as to whether they will enforce this rule strictly. Any player, however, may demand its enforcement.

III. Betting Before the Draw.

THE player on the left of the age, or, if there has been a straddle, the one on the left of the last straddler, is the first to announce whether he will play or not. If he does not care to bet on the cards he has, or on his chances in the draw, he says "I pass," and lays his cards, face down, in front of the age, where the discard pile should always be made. If he desires to play, he puts into the pot whatever amount is called for by the blind, or the last straddle. That amount is obligatory, but it is a fixed rule that whenever a player's turn comes to bet, he may also raise as much as he chooses, up to the amount of the limit. Therefore, in addition to putting up the amount called for, he may also put up more if he desires, but not more than the amount called for plus the amount of the limit. He must, however, put up the entire amount which he wishes to bet at one time. A player cannot make two bets on the same round.

The next player then has his turn. If any player plays out of turn at any time, he is liable to loss, even if Rule VIII. be not enforced, for no one loses any privilege rightfully belonging to him by reason of another player's error.

Therefore, if C comes in before B has played, B may still raise, as it was his right to do, and so make it cost C more than he expected to bet. If C should decline to see this raise he would forfeit what he had put into the pot by error, for any error in play is made at the expense of the player who makes it. It is a common usage, however, to allow him to withdraw the bet he made by error, if he refuses to play.

Each player in turn makes his bet, or passes and lays down his hand. If he bets, he must put up as much as the player preceding him, and if he chooses to do so, may also raise. When it comes the turn of the age to play, however, he is credited with the amount of the blind he has already staked, and has only to put up an additional amount sufficient to equal what the last player has bet. If there has been no raise, this closes the betting before the draw. If, however, there was a straddle, or some one has raised, the play continues in the same order till each player has as much at stake as any other player has put up. If any player declines to see any raise, he forfeits whatever money he has already staked, and lays his cards in the discard pile.

IV. The Draw.

THE pot being now made up, the players who have remained in the betting have the opportunity to draw, each one as many cards as he desires, to better his hand. If he chooses he may take five. When he calls for cards, however, he must place in the discard pile out of the hand he already holds, as many cards as he calls for, and this he must do before receiving those he calls for. This must be done by each player in turn, no one being allowed to discard, or call for a draw before the player preceding him has been served. Disregard of this rule is unfair play, and though there is no penalty for it that can well be fixed,

good players will refuse to continue in a game with one who offends in this way.

In serving the draw the dealer begins with the first player on his left, serving each one in turn with as many cards as he calls for, and satisfying each one in turn before serving the next. He must deal these cards one by one from the top of the remainder of the deck still in his possession, not including the discard pile. If there should be enough cards called for to exhaust the deck, he must not serve the bottom card, because that may have been seen by some of the players, but when he comes to that one he must place it in the discard pile. The discard must then be shuffled and cut and used in place of the original deck to complete the service of the draw.

Should any player receive too many or too few cards in the draw, the rule is the same as in the original deal. He may demand that the error be rectified if he discovers it before the draw is completed. If not, his hand is foul. If the dealer has served the next player before his attention is called to the error, he must complete his service to all the players and then deal the required card or cards from the deck. If any card, however, should be faced accidentally in the serving it goes in the discard, as the player to whom it falls cannot accept it. The dealer continues as if no error had been made, until he has served all who desire to draw, and then serves the next card at the top of the deck in place of the one which was faced.*

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*An effort has recently been made by some players to change this rule, by compelling the acceptance of a card faced in the draw, just as a card faced in the original deal must be accepted. This, however, is not good poker, as it gives the other players positive knowledge of what one player holds in his hand after the draw.

Another variation that is played in some clubs is to make the dealer complete his service to the player whose card was faced, before serving the next who desires to draw cards. This is also objectionable as it affords a dexterous dealer the opportunity to deal dishonestly, and moreover it results in giving the other players different cards from those they should receive in the regular order. This last point may not be important, but any player has the right to insist upon it, and many do so.

V. Betting After the Draw.

Betting after the draw is done in the same order as that before the draw. The player to the left of the age bets first. He puts in the pot as much as he desires to bet, up to the amount of the limit. If he is not willing to bet, he throws his hand into the discard pile. If the next player desires to bet, he puts up as much as the next preceding player has bet, and if he chooses, may raise any amount up to the limit. Each player who has remained in, does the same in turn, till each one has as much in the pot as any other one player has betted; then the pot is closed, and the showdown is in order.

If, however, any player has made a raise or a bet which no other player is willing to cover, he takes the entire pot without showing his cards, and the next deal is in order.

VI. The Showdown and Settlement.

When the pot is closed, each player who has remained in till the close, lays his hand on the table face up, and the one showing the highest hand takes the pot, regardless of any words or any claim made which the cards do not justify. In case two or more players show equal hands, and no single hand beats them, those holding the highest hands divide the pot equally between them, the other players taking nothing. If any player calls for a show for his pile, the procedure is according to Rule I.

No bet in Draw Poker is made until the money is put into the pot.

VII. Jack-pots.

In playing for a jack-pot, the order of procedure is somewhat different from that prescribed by the preceding rules. In lieu of placing a blind on the table as the nucleus of a pot to be made up of the voluntary contributions of

those who desire to play after receiving cards, the pot is made up by each player chipping in an equal amount before the deal. This, of course, does away with the blind and the straddle, and by making it compulsory for each player to contribute whether he has good cards or not, has a tendency to make the play faster and higher. The jack-pot is therefore favored by those who desire to push the action of the game, and is in disesteem among more conservative players.

It is, in consequence, often the case that a party will sit down to play jack-pots exclusively. The more common practice, however, is to play the ordinary game with occasional jack-pots interspersed among the others. The recurrence of the jack-pot is usually determined by the use of a buck, and by an agreement to play a round of jack-pots, or a whangdoodle, whenever Four of a Kind or a Straight Flush shall be shown in the game. By agreement, a jack-pot is played in some clubs whenever Three of a Kind or better is shown in play. No hand of this kind, however, is considered the occasion for a single jack-pot, or a whangdoodle, unless it is called and therefore shown by compulsion.

The buck is any small object, such as a penknife, which is placed with the chips in the pot, at the beginning of the game. The winner of that pot takes it in, together with the chips, and holds it until it is his turn to deal. He then places it in the centre of the table and declares a jack-pot, at the same time putting up the amount for which the jack-pot is to be played. This amount is any sum, within the limit, which he may desire to make it. Each other player then puts up a like amount, and the pot is closed.

When a whangdoodle is played, or the game is all jack-pots, it is a common custom, though not a matter of

rule, for the dealer to put up the entire amount of the pot. As each player deals in turn, this makes the burden equal and avoids possible disputes. In such a case each dealer "deals out his own pot," or in other words, continues to deal until the pot has been opened and played for.

The pot being closed, the dealer serves five cards each to all the players, as in the ordinary game. The player on his left then declares himself first. If he has a pair of Jacks or better, he may bet. Otherwise he must pass, still retaining his cards, and the next player has a say. If he does not bet, the next, and then the next declares himself, till all have refused to bet or to "open the pot," as making the first bet is called. The pot is then sweetened by each player putting in a white chip, and the deal passes to the next player, unless it has been agreed that each one shall deal out his own pot; then the same player deals again. This last must always be done when there is a whangdoodle, or when the dealer has put up the entire pot, as explained. The pot is usually sweetened after each unsuccessful deal, but this may be omitted by agreement.

No player is allowed to open the pot unless he has a pair of Jacks or better in his hand at the time of opening, which, as explained, is before the draw. If he opens by mistake without holding such a hand, he forfeits all claim to the pot, and to all that he has put up. If other players, however, have joined in the play after such a false opening, they continue to play for the pot, exactly as if the opening had been legitimate. If the error is discovered before any play has been made, it is as if no such misplay had occurred, excepting that the player opening falsely forfeits his chance to play. It is a common practice in many clubs to require the player who has made this error to put

up the ante for the entire party in the next jack-pot, but the trouble with this rule is that there is no authority by which it can be enforced. The player can refuse to submit and there is no remedy excepting to manhandle him or to refuse to play longer with him.

If a player has Jacks or better, he may open the pot or pass, as he chooses. If he opens, he puts in the pot as large a bet as he likes, up to the limit, at the same time saying "I open it for" — as much as he puts up. The next player must then put up an equal amount, or pass, laying down his cards. He may bet without having Jacks if he desires to, and under the invariable rule that a player can always raise when it is his turn to play, he may raise if he desires, no matter what he holds, or does not hold.

Each player in turn having bet, or laid down his cards, and all raises having been seen by all the players that remain in, the pot is again closed, and the draw follows as in the ordinary game. After the draw, the player who first opened the pot makes any bet he chooses, up to the limit, and the others play in turn as in the ordinary game, the same rules governing the betting and the showdown.

At the time of the showdown, the opener of the pot is compelled to show his hand, regardless of the betting, to prove the fact that he had the necessary openers. If he has not been called, however, he need show no more than enough of his hand to justify his having opened.*

In regard to splitting openers, there has been much discussion, and rules differ in different clubs. The most approved play is not to allow the split. When it is allowed, the player must be careful to preserve the proof that he had openers before the draw. This he will best do by lay-

* Rules differ on this point in different clubs. The one given above is, however, the best and most logical, since no player should be forced to show what he has betted on unless his bet is called, and if he show openers, he shows that he violated no rule in opening, which is all he can be called on to show.

ing his discard to one side and guarding it until the showdown. It has been argued against this, that by doing so he is liable to draw attention to the fact that he is splitting, and so to betray his hand. This argument, however, is not good, for the risk of betraying his play is only a fair offset to the privilege of splitting, which he enjoys only by the indulgence of the other players.

VIII. Errors.

ANY player playing out of his turn, whether in a jackpot or in the ordinary game, forfeits his hand and all that he has put into the pot. This rule under some circumstances appears harsh, and it is not always enforced. As a matter of good play, and in justice to the other players, however, it should always be insisted upon.

Any error in play (excepting those in the deal, as provided for in Rule IV.) must be held to work to the disadvantage of the player making it, since it is manifestly unfair to make the others suffer in consequence. Thus, if a player puts chips into the pot by mistake he may not withdraw them except with the consent of all the other players. If his hand be dead for any reason, he forfeits any amount which he may have contributed to the pot and he cannot call for a new hand.

Calculation

of Chances

Chances in Draw Poker.

IN calculating the chances of any single bet made in the game of Draw Poker, the player has a number of different things to take into account. The blind, as elsewhere explained, is a compulsory bet. So is the original stake which each player puts in as his contribution to a jack-pot, but every other bet in the game should be made only after all these various things are remembered and duly considered.

Bets made are of two kinds, namely: those made in good faith on the chance of the player holding a better hand in the showdown than will be shown by any other player, and secondly, those made in the hope of convincing the other players that the bettor's hand is exceptionally strong, and that it is therefore useless for any other hand to be backed in opposition to it. Bets of the latter class are called bluffs, and the art of making them successfully is a part of what may be called the finesse of the game, in contradistinction to the mathematical science of it.

The highest skill in Draw Poker undoubtedly consists in a combination of this finesse with the mathematical science; but inasmuch as the entire theory of the game is constructed on the basis of the mathematical chances, and inasmuch, also, as the art of finesse can never be thoroughly mastered by one who does not understand something, at least, of the percentages of chance, it is altogether advisable to study the mathematics first.

The things to be considered, then, in what may be called,

by way of distinction, a bonafide bet, may be classified as follows:

1. The standing or value of the cards received in the deal (before the draw).

2. The mathematical probability as to whether any other hand (before the draw) exceeds it in value.

3. The mathematical chances of bettering one's own hand in the draw.

4. The odds to be obtained in the betting.

5. The prospect of these odds being changed by other players coming in.

6. The chance of a raise by some other player which will necessitate a choice between betting again and surrendering.

7. The probabilities of other hands being bettered in the draw.

8. The indications which may have appeared concerning the strength of the other players.

In scanning this list it will immediately appear that the first four things specified may be determined more or less exactly by mathematics. To determine the first we must know what constitutes the value of a hand.

I. The Relative Value of Hands.

THE lowest hand that can be held in poker is seven, five, four, trey and deuce of different suits. The highest hand is a Royal Flush. Between these two are so great a number of possible varieties that it would be an almost endless task to arrange a table in which each single combination of five cards would appear in a place between the next higher and the next lower combination of five. Even if such a table should be prepared, it would be too cumbersome for practical use, since there are 2,598,960 different combinations of five cards each, which are to be found in a standard deck of fifty-two cards.

Manifestly it would be a practical impossibility for any one to find a given hand, or combination of five, in this imaginary table, unless the table should be classified in some fashion, and he should understand the order of classification. And since the work is too great to be done in detail, the classification and theoretical arrangement have been figured out according to the laws of permutation.

Even to present these calculations in detail would necessitate a more voluminous work than this present book is intended to be. Therefore, only the results of the calculation are to be given here. Enough may be said, however, of the method of classification to make the whole subject clear, and to enable any person with a taste for mathematical work to figure out for himself the accuracy of the values of the various hands as laid down by the rules of the game of Draw Poker.

These values, it must be explained as a beginning, are fixed according to two rules. One is the arbitrary law according to which the thirteen cards of each suit are ranked, and the other is the number of times in which a combination of a given sort will be found in the total of 2,598,960 possible combinations in the deck.

By analyzing the Royal Flush, which is accepted as the highest hand, we can see why it is so accepted. First, lay out the hand. It needs only a moment's thought to determine that there are three other hands in the deck exactly similar to it, the different suits being all equal in value. There are, then, four Royal Flushes only in the deck (a fact which needs no demonstration), and the question is why this hand is held to be the highest.

The first peculiarity of the hand which attracts attention is that it is composed entirely of cards of one suit, so we call it a flush. Only a limited number out of all the possible hands can have this peculiarity, so we apply the

laws of permutation to learn how great or how small this number is. The calculation proves that there are 5,148 flushes in the deck.

We then look for some other peculiarity by which the Royal Flush is to be distinguished from other flushes, and the next thing that strikes us is that the five cards are in an uninterrupted sequence according to the arbitrary rule which establishes the comparative value of different cards of the same suit. The hand is therefore what we call a Straight. Having recourse again to the laws of permutation we find that out of the 5,148 Flushes in the deck, there are 40 which are also Straights, and which rank therefore as Straight Flushes.

Now, the Straight Flush has one characteristic which marks it as distinct from any other hand that is classified as a poker hand. No other card of the fifty-two in the deck can be substituted for any one of the five in the hand without altering some peculiarity of the hand, or altering its value. We have therefore discovered forty hands in the 2,598,960 which are clearly different from all the others. They are therefore distinguished from all the others, and the fact that they are less likely to be held than any of the others, being less numerous than any other, is held to establish their value as higher than the others.

It is perfectly clear that it would be possible to establish any one given combination as the highest in the 2,598,960 if everybody would agree to it. Thus the Jack of hearts, the seven of clubs, the five of spades, the three of hearts and the deuce of diamonds could be played as the most valuable hand in the deck by common consent. So could any other one hand. But a law of poker is that a hand to possess value must have some natural equality, resemblance, or sequence in value, among the five cards composing it, to entitle it to distinction. The supposititious

hand mentioned has neither equality, resemblance, nor sequence among its cards, and there is therefore no reason for its having any rank.

In former times sequence was not counted as a part of poker. The resemblance of one card to another in the same hand, whether it was a resemblance of suit or equality in rank, was held to be the only characteristic that entitled the hand to recognition. There were therefore only seven varieties of hands known to the game, instead of the ten that are now recognized. When the sequence was recognized, the Straight was played as a hand. At first, it was reckoned to be inferior in value to three of a kind. Mathematics, however, soon proved that it was a scarcer combination among the 2,598,960 than Threes, and its rank was established accordingly. Then the Straight Flush was discovered, and as the Straight was already established, this also was promptly recognized. The mathematical test being applied, there was no difficulty in assigning it to its proper rank.

It is not difficult to see at a glance how these forty Straight Flushes are differentiated in value, since the values of individual cards are the same as those fixed in whist, with the sole difference that the Ace may be counted as the highest or the lowest, at the option of the player holding it. These whist values being accepted, it is established as a rule in poker that when two hands are similar in other respects, the value of the highest card in either hand determines the comparative rank of the hands, and in case the highest cards tie, the next highest determines. A Straight Flush, therefore, is ranked according to its highest card, which may be anything from a five spot to an Ace. When it is an Ace, the hand cannot be beaten and is therefore called Royal. It is one of the forty scarcest hands in the 2,598,960 in the deck, and is the highest of these forty in

respect of its denomination, and therefore ranks as the highest hand.

Examination and analysis up to this point having shown us why the Royal Flush is properly ranked as the highest hand, our next step is to analyze the lowest hand in similar fashion, in order to see why it is the lowest.

As stated, this lowest hand consists of any seven, five, four, trey and deuce in the pack, so that they be not all of the same suit. By spreading out five such cards and examining them, the reason must appear, or else the principles of the game are erroneous.

First, we perceive that the cards do not resemble one another in suit, and that no two of them are of the same value. It is true that there must be among the five at least two of one suit, for there are five cards and only four suits, but since there cannot be any hand without two cards of one suit in it, this resemblance in suit is not recognized as a characteristic unless it includes the whole five. If all are of the same suit, the characteristic is at once noticeable and the hand will be called a Flush, the value of which will be discussed presently.

The five cards now under consideration, however, have no resemblance, as was said, and as we examine further, we see that they are not in sequence. It is true that there is a sequence of four, but, as in the case of a Flush, the Straight is not recognized unless it includes the whole five. It is therefore a hand without any distinguishing characteristic, and for that reason is not entitled to any rank.

Being without characteristics, and therefore without rank, the only value it can have must come from the denomination of the five cards it contains. There are 1,302,540 hands out of the 2,598,960 possible ones in the deck which, like this one, and including this one, have no rank for the reasons mentioned; but this one is composed of the lowest

five cards that can be put together without including at least a pair. This will be seen after a little more study of the hand. If the Ace appears in a hand of this general character it counts, not as the lowest, but as the highest, so that the hand would be Ace-high. The deuce is absolutely the lowest, the trey next, the four next, and the five next lowest. These four must therefore appear in the lowest hand. The six is the next lowest, but if it be also included, the hand becomes a Straight. The next lowest must therefore be taken, and that is the seven, making the combination we are studying.

The harmony of principle that exists in the game is further shown by the contrast between the frequency with which this lowest hand and the Royal Flush, which we have shown to be the highest, are to be found. There are only four Royal Flushes, but there are 1,024 hands in the deck, each of which is composed of a seven, five, four, trey and deuce. As four of these would be flushes, it remains that there are 1,020 variations of the lowest hand, and as the rarity of a hand is a prime consideration in determining its value, the rules are all seen to be in harmony. It is true that there are 1,301,520 other hands besides this that are devoid of characteristics and are therefore classified in the lowest rank, but each of them when examined will be found to contain some card of higher denomination than a seven, and will therefore be counted as of higher value.

Our examination of these two hands has therefore shown us the various reasons why one hand is ranked above or below another, and it only remains to apply the laws of permutation to the entire number of 2,598,960 possible combinations to see how many can be found of each of the various kinds that are entitled to a separate rank.

As was said, there are 1,302,540 hands in which there

is no resemblance of suit existing among the whole five cards; no sequence of five; and no two cards of the same denomination. These, being the most numerous, and being also colorless, are ranked as the lowest. A hand of this description is briefly called "No Pair." When two or more of this kind are compared, the one containing the highest card in denomination ranks highest. If the high cards tie, the next highest cards determine. If these also tie, the next highest, and so on.

Next, we find that out of the entire number, there will be found 1,098,240 hands in which two cards of the same denomination or a single pair will appear. This hand is called "One Pair" and holds next rank to "No Pair," being next to the most numerous. These pairs rank one another according to their whist values. In case of a tie in the pairs of two different hands of this rank, the highest of the other three cards determines the rank of the hand; and if there be a tie in the pairs and in the highest outside card, the next highest determines, as before.

Examining further, we find 123,552 hands in which there will be two pairs. As to its frequency of occurrence this hand comes third in the list, and for that reason, and also because it has more character, it outranks "One Pair." This hand is called "Two Pairs," but is frequently called after the higher pair of the two, as "Aces Up," meaning a pair of Aces and a lower pair, or "Sevens Up," meaning a pair of sevens and a lower pair. The comparative value of two such hands is determined by the whist value of the highest pair. Thus Jacks Up will beat Tens Up, even if it be Jacks and deuces against tens and nines. If the higher pairs tie, however, the value of the lower pair determines. If these also tie, the odd card decides.

The next most frequent hand will be found to contain three cards of the same denomination. There are 54,912

of these hands, and as the number diminishes, the character of the hand strengthens, three of one kind being more distinctive in appearance than two pairs, as well as less frequent of occurrence. This hand is called "Three of a Kind," or briefly "Threes." There can be no ties between Threes.

Next in frequency will be found those hands in which there is an uninterrupted sequence in value from the highest to the lowest card in the hand, not all, however, being of the same suit. These are called "Straights." There are 10,200 of them, and a tie between two of them remains a tie, there being no difference in the value of the suits. The Straight is the most frequent of what may be called the complete hands or those in which each card is necessary to make the whole of value. It is also the least distinctive in character, requiring, as it does, more than a single glance to determine its character. It is, therefore, for these two reasons accounted the lowest in value of the complete hands.

Next comes the Flush, in which each of the five cards is of the same suit as the other four, but in which there is not a sequence in value. There are only 5,108 of these, and the Flush outranks the Straight, not only because it is less frequent, but because its distinguishing characteristic is more immediately apparent, being distinguishable at a glance, without examination. The comparative value of Flushes is determined by the denomination of the highest card. Thus, a Flush containing an Ace outranks one in which a King is the highest card, regardless of the value of the other four. In case the highest cards tie, the next highest determines, as before.

Next highest in value, because next in rarity of occurrence, comes the hand in which there are three cards of one denomination and two of another. It can hardly be said that its distinguishing characteristics are more apparent than

that of the Flush, but it is much scarcer than the Flush, as there are only 3,744 hands of this sort, and the rank is therefore entirely mathematical. This is called a "Full," a "Full Hand," or, sometimes, a "Full House." The comparative rank of two Fulls is determined by the value of the Threes they contain regardless of the pairs, so there can be no ties. The Full is commonly called after the Threes it contains. Thus a Jack Full means one in which there are three Jacks and a pair. It will outrank a Ten Full, even though the pair in the latter hand may be higher than the pair in the former.

Next highest, and the highest of all the incomplete hands, come those in which there are four cards of the same denomination. At the first thought it appears that there can be only thirteen of these hands since there are only thirteen denominations in the deck; but a little consideration shows that each one of these thirteen may have any one of 48 other cards as the fifth card in the hand, so that there are 624 possibilities out of the 2,598,960 in which four of a kind may appear. This hand is called "Four of a Kind," or briefly "Fours." The comparative value of Fours is easily seen. There can be no ties.

Next higher in rank comes the Straight Flush, which we have already examined, and highest of all the Royal Flush.

II. Probable Value of Opposing Hands.

It is evident that if a number of hands are dealt from the deck, and only one of the number be examined, as is the case when a player receives his five cards from the dealer, the only way to estimate the comparative strength of the other hands will be by the law of averages. In Draw Poker there are indications to be noted, of the probable strength of opposing players, concerning which something will be said later on. The first step of the player, however,

is to discover what he has himself received in the deal, and the second, to figure the standing of his own hand in comparison with the mathematical chances of the others. His study of the indications referred to must follow these preliminary steps.

Mathematically, then, he looks for the average hand, and this, he will find, is Ace-high. That is to say, there are about 200,000 possible hands in the deck which will be composed of an Ace and four other cards, none of which adds to the strength of the Ace. As we have seen, there are 2,598,960 possible hands in all, 1,296,420 of which are better than Ace-high. If he holds Ace-high, therefore, he knows that there are about the same number of possible hands lower than his, as there are of possible hands better than his. With one player against him he would be just as likely to win as to lose, betting on Ace-high.

Evidently, if there are three players in the game, there are two even chances of his Ace-high being beaten. If there are seven in, the chances are multiplied accordingly.

The next thing to remember is that two players holding the same hand before the draw have the same chance of improving that hand in the draw. Therefore, the one holding the better hand before the draw stands the better chance of winning. While the draw may favor the lower hand, the even chance is that it will favor the higher one.

As no good player will venture money repeatedly when the chances are against him, it is easily seen that it is an elementary principle of good play to establish what may be called a working average, and decline, ordinarily, to pay money for the privilege of drawing cards to any hand that falls below that average. A coup may sometimes be made by drawing to an almost hopeless hand if good cards happen to come in the draw, but justification for such play is only to be found when the player can get good odds in

the betting. If he gets five or six to one before the draw, he may risk his money on such a chance, even though he realizes that he has no show to win without striking luck in the draw.

The working average is considered by most players to be a pair of eights or nines. With such a hand they consider, unless some other player has indicated his strength, that they have a fair chance of winning, and if they get ordinary odds in the betting, amounting to two or three to one or better, the play is a safe one. Conservative players fix this average a little higher, and refuse to draw to less than a pair of tens or Jacks, but he who will not pay to draw to Jacks, unless he has a good reason to believe because of some clear indication, that Jacks are worthless, is a timid player and likely to lose.

III. The Chance of Bettering in the Draw.

The next thing to consider, in the order in which we have begun the study, is the chance the player has of improving his hand in the draw. As we have followed the game up to the point at which the draw occurs, a pot has been made up, to which each player has contributed an equal amount, relying partially on what cards he already holds, and partially on the chance he has of getting an improved hand in the draw. It is evident that unless he knows what the mathematical probability of improvement is, he cannot tell whether he has betted wisely or not before the draw.

Following are the chances of getting the various hands, the results only of calculation being given. It is easy to verify the statements by applying the laws of permutation, but to include all the figuring in this work would increase its size unduly. All that is here presented, therefore, is a summary to be used as a guide in actual play.

Royal Flush. — Drawing to four of a Royal Flush the chance is 1 in 47. There are 47 cards which the player has not seen, any one of which he may get, so that this is easily figured.

Drawing to three of a Royal Flush the chance is 1 in 1081. There are 47 cards unseen, and therefore 2 chances in 47 of getting one or the other of the two cards necessary. Supposing the first card received in the draw is one of the two, there remain 46 still unseen, and the chance is 1 in 46 of getting the second. We therefore multiply 2/47 by 1/46 to get the exact chance, and find it is 1 in 1081.

As it is impossible in the game of Draw Poker to get odds of 1081 to 1 in the betting, no good poker player will venture money on this chance. It is true that some players do it occasionally as a " flyer," and it is on record that the play has been successful more than once, but it was purely accidental, and the player who tries such experiments is betting against all laws of chance. The writer has twice won money by filling a Straight Flush on a three-card draw, but the play was entirely unjustifiable.

Following the same rule it is easy to see that the chance of filling a Royal Flush on a three-card draw is 1 in 16,215. On a four-card draw it is 1 in 178,365.

Straight Flush. — If a single card be drawn to Ace, deuce, trey and four of one suit, the chance of filling the Straight Flush is the same as in drawing one to a Royal Flush. Only one card in the deck will fill it, and the chance is therefore 1 in 47. If the Straight Flush of four be any intermediate Straight, the same rule holds good. There is only one card which will serve.

If, however, the Straight Flush of four be open at both ends, the chances are obviously 2 in 47.

Drawing two cards to a three of a Straight Flush involves different conditions. If the three be, for instance,

the Queen, Jack and eight of clubs it is evident that the ten and nine of clubs are the only two cards in the deck that will fill a Straight Flush. But if the three cards held be the Queen, Jack and nine it is evident that either the ten and eight, or the King and ten, would fill. And if the three be the Queen, Jack and ten there is a still greater chance, for a Straight Flush may be made by drawing the Ace and King, the King and nine, or the nine and eight.

No one of these chances, however, is large enough to consider. No player can be justified in betting on it or expecting it. If he draws to a three Flush, or Monkey Flush, at all, he is wasting the money he pays to draw, and does not deserve to win even on a Flush.

Four of a Kind. — If the five cards held before the draw include four of a kind, the draw becomes merely an incident of play, designed to mislead the other players. It cannot better the hand, and the question whether to draw or not is to be considered solely as a matter of finesse and not of mathematics.

If three of a kind are held, and two cards are drawn, there are 2 chances in 47 of getting the fourth. If one card only is drawn, the chance is 1 in 47.

If a pair is held, and three cards are drawn, the chances of making Fours is within an infinitesimal fraction of 1 in 1160. If two cards are drawn to a pair, a kicker being held, the chance is 1 in 1081.

If four cards are drawn, the chance of getting the other three of the same kind is approximately 1 in 4054. There is also 1 chance in 22,395 of drawing four of some other kind than the one held.

Obviously, if a player's chance of winning a given pot depended solely on his holding Fours, he would not be justified in betting unless he held them pat, since he cannot get odds of 23½ to 1 in the betting. On anything less

than Fours already in his hand, therefore, the chance of filling Fours is only to be reckoned as one of his possibilities of winning. Combined with other possibilities they may justify his betting, but nothing less than Three of a Kind in hand presents a chance of making Fours in the draw sufficiently large to base a hope on.

FULL HAND. — Drawing one card to two pairs the chances of making a Full are 4 in 47. Drawing to Three of a Kind and a kicker, they are 3 in 47.

Drawing two cards to Three of a Kind the chances of a Full are 72 in 1081, or almost exactly 1 in 15.

Drawing two cards to a pair and a kicker the chances of a Full are 6 in 1081, or approximately 1 in 180.

Drawing three cards to a pair the chances of a Full are 180 in 16,215, or almost exactly 1 in 90.

FLUSH. — Drawing one card to a four Flush the chances are 9 in 47 of filling. There are nine cards of the suit among the 47 which remain unseen.

Drawing two cards to a Monkey Flush the chances of filling are 90 in 2162, or almost exactly 1 in 24.

Drawing three cards to two of the same suit the chances for a Flush are about 1 in 98.

STRAIGHT. — Drawing one card to a four Straight the chances of filling are 8 in 47, if the Straight is open at both ends. If it be an intermediate, or one with an Ace at either end, that you are drawing to, the chances are 4 in 47.*

Drawing two cards to three of a Straight, if one of the three is an Ace, the chances of filling are 32 in 2162

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*There is an apparent contradiction between the chances of filling a four Flush, and the chances of filling a four Straight. The four Flush is the easier to fill, yet the Flush is the more valuable hand, and this seems to be at variance with the principles of poker. A little consideration, however, will show that the four Straight is far more common than the four Flush. You do not hold the four Flush nearly so often as the four Straight, but if you hold it you have a better chance of filling it in the draw.

or 2 in 134. If there be no Ace among the three, the chances of filling will vary according to the variety of ways in which the Straight may develop. For example, it is easier to fill a Straight by drawing to Queen, Jack and ten than it is by drawing to a King, Jack and ten. The first becomes a Straight if you draw an Ace and King, a King and nine, or a ten and nine, but to fill the latter you must get a Queen and either an Ace or a nine. In either case the chance is too small to justify a bet, and therefore need not be calculated.

Three of a Kind. — Drawing three cards to a pair, the chances of making Three of a Kind are 6 in 47. Drawing two cards to a pair and a kicker, the chances of Three of a Kind are 4 in 47.

Two Pairs. — Drawing three cards to a pair, the chances of making two pairs are 16,212 in 97,290, or almost exactly 1 in 6. Drawing two cards to a pair and a kicker the chances are 9726 in 97,290, or about 1 in 10.

One Pair. — Drawing one card to four odd ones the chances of a pair are 12 in 47. Drawing two cards to three odd ones the chances are 18 in 47 of matching one of the three, plus the chance of the two that are drawn being a pair, which is about 1 in 15, making the total chance approximately 2 in 5. Drawing three cards to two odd ones the chance of a pair is very nearly the same; and drawing four the chance is not far from even that a pair of some sort will be found in the hand after the draw.

IV. The Betting Odds.

In calculating the odds of any bet two things are certain. In the first place the player puts up his money as against that which is already in the pot. No other money can be reckoned with any certainty, inasmuch as the other players may all refuse to bet after him, even though some

or all of them may have the right to do so. The actual odds obtained, therefore, are the money already in the pot, be it much or little, as against that which the player is putting in.

But, in the second place, unless the player has the last say, being the age, or sitting next on the right of the last player who has raised, there is the contingency of a change in the situation to be remembered. Any player whose right it is to bet after the one who is now being considered may raise him instead of seeing him.

At this point many players err in thinking that the former odds are to be remembered and included in the new calculation that is necessary after being raised. This is not true. What a player has ventured already has nothing to do with the odds he gets on his new bet when he comes to bet again. And the wisdom of refusing to bet is in no wise affected by the fact of his having, or not having, previously contributed to the pot.

To make this clear, suppose that there is $17 in the pot, of which the player has contributed $3. Since he put up his $3 some other player has raised $2, and if the first bettor still desires to play he must put up $2 more. The obvious and perfectly natural thought is that as he has put up $3 already and is to put up $2 more he will be getting odds of 14 to 5. As a matter of fact, however, the $3 which he put in originally no longer belongs to him but to the pot. For the purpose of calculating his further bet he must proceed on the assumption that his first bet is already lost. The odds he really gets in the bet now contemplated are 17 to 2. This will be manifest when it is remembered that his first bet will be absolutely lost if he decides not to put up the $2.

Of course, in the event of his winning the pot his actual profit will consist of only the amounts that the other players

have put up. He cannot reckon his own contributions as winnings. The point to be remembered, however, is that each bet is made at the actual odds as described, regardless of the amount that the player has already contributed. In other words, when it comes to a second or third bet the player is betting against the money that he himself has previously contributed. It is very important to keep this in mind.

It is an elementary proposition that if a man shall continue to make bets at given odds, on the happening of some event, when the chances of the occurrence are less than his own percentage in the pool, he will lose his money in the long run. If, therefore, in Draw Poker, he puts a greater proportion into a pot than is represented by the mathematical probability of his holding the winning hand, he is betting wildly. If he continues to do this, there is almost a certainty of his "going broke." It is conceivable that by a freak of luck he might win a great many foolish bets, just as he might possibly win a succession of capital prizes in a lottery, but no sane man would expect such a happening.

To illustrate this, suppose two men to be playing poker. A has a four Flush before the draw, and B puts up a bet. It is evident that before cards can be drawn, A must have an equal amount with B in the pot, so that he can get no odds whatever in the betting. His only chance of bettering his hand in the draw, or practically his only chance, since his four cards are all small, is in drawing a fifth of the same suit. It is tolerably certain that B has something better than a four Flush in his hand, else he would not have betted. If A bets, therefore, he is putting up even money on the chance of filling his flush. But, as we have already calculated, he has only 9 chances in 47 of filling. It is therefore just about as foolish for him to play as it would be for him to bet even money on throwing a given number

out of the box with one die — a thing that no dicer would think of doing.

Whenever a player, then, is called on to put chips into a pot, he should see how many are already in. This will tell him the odds in the betting. If he judges that his chance of holding the best hand is as good as his percentage in the pot, it is a good bet. If not, he is betting against odds.

V. The Known and the Unknown.

Up to this point we have considered those elements of chance involved in the betting which are determinable by pure mathematics. So far as these are concerned, the player who is quick in perception and has the mathematical mind will have little difficulty in determining as to the wisdom or unwisdom of betting on the cards he holds. This, however, is only a small part of the science of the betting and has nothing to do with the finesse of the game. The other things to be considered can only be estimated — not calculated.

It must be remembered that the player who ventures a stake in Draw Poker must not only take into consideration the cards he holds in his own hand, but those also which the other players hold. He has positive knowledge of the one, but no knowledge whatever of the other, and must rely entirely on his judgment in estimating the probabilities of the hands opposed to his own. He is betting on a known proposition against one, two, or half a dozen unknown propositions. It is evident that if each player should base his own betting on the mathematical chances of his own hand being better than any other that might be out, the game would be one of pure chance, since he would ignore the skill which enables him to recognize the indications which guide the good player in judging the strength of his opponents. In other words, he would be betting against

the mathematical chances of his opponents instead of the probabilities as evidenced by their play as it progresses from step to step.

In this connection probably nothing better can be said than is contained in a quotation from an essay by Edgar Allan Poe. Poe's fame undoubtedly rests mainly on his poetry, but it is true that he was a mental analyst of no mean ability. In treating of the game of whist he wrote:

"...Proficiency in whist implies capacity for success in all these more important undertakings where mind struggles with mind. When I say proficiency, I mean that perfection in the game which includes a comprehension of all the sources whence legitimate advantage may be derived. These are not only manifold but multiform, and lie frequently among recesses of thought altogether inaccessible to the ordinary understanding. To observe attentively is to remember distinctly; and, so far, the concentrative chess-player will do very well at whist; while the rules of Hoyle (themselves based upon the mere mechanism of the game) are sufficiently and generally comprehensible. Thus to have a retentive memory and proceed 'by the book' are points commonly regarded as the sum total of good playing. But it is in matters beyond the limits of mere rule that the skill of the analyst is evinced. He makes, in silence, a host of observations and inferences. So, perhaps, do his companions; and the difference in the extent of the information obtained lies not so much in the validity of the inference as in the quality of the observation. The necessary knowledge is that of what to observe. One player confines himself not at all; nor, because the game is the object, does he reject deductions from things external to the game. He examines the countenance of his partner, comparing it carefully with that of each of his opponents. He considers the mode of assorting the cards in each hand, often counting

trump by trump, and honor by honor, through the glances bestowed by their holders upon each. He notes every variation of face as the play progresses, gathering a fund of thought from the differences in the expression of certainty, of surprise, of triumph, or chagrin. From the manner of gathering up a trick he judges whether the person taking it can make another in the suit. He recognizes what is played through feint, by the manner with which it is thrown upon the table. A casual or inadvertent word, the accidental dropping or turning of a card, with the accompanying anxiety or carelessness in regard to its concealment; the counting of the tricks, with the order of their arrangement; embarrassment, hesitation, eagerness, or trepidation — all afford, to his apparently intuitive perception, indications of the true state of affairs. The first two or three rounds having been played, he is in full possession of the contents of each hand, and thenceforward puts down his cards with as absolute a precision of purpose as if the rest of the party had turned outward the faces of their own."

With some slight paraphrasing, this analysis of whist is perhaps as masterly an exposition as could be written of the finesse required in the game of Draw Poker, preliminary to the betting. It is absolutely essential to the training of a Poker player that he shall study the various indications of his opponents' strength. With all his study he will never be able to tell positively what hands are held against him. If he could do so the element of chance would be eliminated from the game, and he would do nothing but bet on certainties. He may, however, acquire considerable skill in forming estimates, and the greater his skill in this particular the better Poker player is he likely to be.

We have already classified* the eight considerations that enter into the formation of a judgment as to the wis-

* On page 44.

dom of a bet. Four of these we have seen to be mathematical calculations with which the player may so familiarize himself that he will be able to see, at a glance, what chances they present. The other four are points on which he must exercise his observation and judgment.

The player has scanned his original five cards and has determined at a glance their actual rank, and the chance (varying according to the number of players in the game) of any other hand extant being of greater value. He knows what the probabilities are as to his bettering in the draw, and has seen what money there is in the pot constituting the sum against which he has to stake a certain sum to obtain the privilege of drawing cards. He should, however, consider all the other points mentioned before staking his money.

If he have the age, and no one has raised, he knows that the odds offered cannot be changed. By making good on his blind he closes the pot. If, however, there are other players to hear from after his bet, he will realize that the odds against his money will increase with each player who comes in without raising. If, however, some other player after him shall raise, his money is lost. He has no further claim on the pot, though he has still the privilege of making another bet at different odds and so acquiring an interest in it. What these odds are at any moment, when it comes the player's turn to bet, are easily calculated by the one rule already discovered, namely, to compare the amount already in the pot with that which the player must put up. No other rule applies. The probabilities of a raise by some other player can only be guessed at. If the player himself shall raise, the rule for determining the odds remains the same.

In regard to the seventh point in our classification very little can be even guessed as to the probabilities of opposing hands being bettered until it is seen what cards each player

draws. Even then there is no mathematical certainty, since a good player does not always draw to the strength of his hand. If he draws one card he may be trying to improve two pairs, or he may have Three of a Kind and be holding a kicker to puzzle his opponents, or he may have a four Flush, or he may have Four of a Kind and call for another card entirely for the purpose of deluding the others.

Drawing two cards is also puzzling, since the other players cannot know whether the attempt is to better Three of a Kind, or whether a kicker is held up to a pair. The safe rule is to credit your opponent with Three of a Kind when he calls for two, unless you know his play well enough to know that he is in the habit of holding up kickers. Even then it is best to be wary.

If three cards be called for, it is almost certain that the one who draws has a pair, since only the most reckless players will often pay to draw three to an Ace and another. You may therefore judge of the chances of your opponent bettering with three cards exactly as you do of your own when you draw to a pair. What those chances are has already been calculated. And if he draws four cards you can tell exactly what his chances are.

It is therefore to be seen readily that your opponent's draw is only one indication of his strength. It is an important one and should be watched closely. To bet against another player after the draw without knowing what cards he took is playing in the dark. At the same time there are many other indications which are also to be recognized by a skilful player, as Poe explained, none of which can be fully described in a written treatise. The faculty of recognizing them can only be developed by practice and by a careful study of the individuality of the players in the game.

Having made the preliminary bets required before drawing cards, and having discovered after the draw what

the actual rank of one's own hand is, the player will perceive that he has only two things to consider, instead of eight, in forming his judgment as to the advisability of betting. He must never lose sight of the actual odds between the money on the table and that which he puts up, and he must combine his mathematical calculations already made with his observation of the play of his opponents in making up his estimate of their strength in comparison with his own.

From this point onward, to the final disposition of the pot, the game becomes a struggle of individual wit and strength among the players. To formulate exact rules as to what is and what is not good play under any given circumstances is a manifest impossibility. A skilful bluff against one player would be mere folly if attempted against another. A mastery of the game, beyond the principles laid down, will depend entirely on the natural aptitude and the practise of the individual. Nevertheless there are many of the elements of skill which depend upon a careful study of the varying conditions of the game, and such a study has been attempted in the following chapters.

These chapters are articles originally prepared by the author for the New York *Sun* and first published in the columns of that newspaper. They are, after careful revision, republished here by permission.

Studies

of Actual Play

Elementary Principles.

IT may be set down as a fundamental principle of the game of poker that it cannot be played brilliantly by any man who confines his operations within the strict limits of mathematical laws. It is unquestionably true that the exact mathematical chance in favor of or against the winning of any given hand may be figured out in any given deal, and it would be possible, if the player holding that hand could himself fix the exact amount to be staked on it, for him to play a strictly mathematical game. If it were practicable to place six players at the table, each one of whom knew the percentage of chances of each hand he should hold, and if each one should bet or refuse to bet in exact accordance with that percentage, the game might be reduced to a mathematical basis and would in that case be robbed of most of its charm while it would still have all the excitement of an intricate calculation in astronomy.

In other words, there is a fixed limit to the permutation even of fifty-two numbers, complicated as it is by the four-fold multiplication of values among the units. It would be entirely feasible to prepare a table in which each possible hand from a Royal Flush down to a seven high of mixed suits would appear in rotation, thus making the relative value of each apparent to the eye. The value of such a table would be considerable to the beginner, since he could determine at a glance how high up among the possibilities each hand stood. No one ever did or ever will prepare such a table, however, since the player's first lesson is to learn the comparative value of all hands, and the sequence is simple enough to be mastered without the aid of diagrams.

Supposing this table to be prepared, however, it becomes a simple though a tedious operation to calculate the chances of each one of the other five players holding a hand of equal or superior value. A separate calculation on each hand before and after the draw is involved in each case, each one varying according to the draw, but all being calculable from the same table, on the same principles of permutation. The mathematical chances of each hand can therefore be reckoned to a fraction, and if it were worth while to reduce the game of poker to the level of the mechanical operations of a nickel-in-the-slot machine, it might be done.

For two reasons, however, it will never be done. The first of these reasons is that the calculation would be almost incredibly tedious, while the result to be obtained would be of trivial value, and the second is that the more important elements of the game so completely overshadow the mathematical quality of it that such a calculation is practically unnecessary.

It is nevertheless a necessity for a poker player to have as a beginning of his knowledge of the game a clear conception of the frequency with which different hands may be expected. The best way, practically, to obtain this conception is by long-continued play and close observation. The player who should begin with a mathematical calculation of the probabilities would be so confounded and confused by the constant contradictions of actual play that he would not only be at a loss to know how to govern his betting, but he would almost inevitably lose sight of the real probabilities of the sitting in which he might be.

To illustrate: It is by no means an uncommon thing for the same party of six to play together at poker for a dozen sittings without having Four of a Kind held once in the entire series. And, on the other hand, it is not unusual for

Four of a Kind to be held twenty-five or thirty times in another dozen sittings of the same party. They might play together for a year and not have a single Straight Flush, and in the following month it might very probably be seen half a dozen times. All this is by no means a contradiction of the principles of permutation or the doctrine of chances, but it shows that apparent contradictions are so frequent that a strict application of those principles is incompatible with sound play.

It is easy to quarrel with the word "luck," and it is easy to demonstrate on paper that in the course of a hundred million deals, for example, just so many Straight Flushes will appear, just so many Fours, and so many Fulls, Flushes, Straights, etc. The theory may be sound enough, and it is much easier to concede it than to attempt to prove or disprove it by keeping account of the full series. The fact remains, however, that the frequency with which certain hands appear varies so greatly at different sittings that the mathematical calculation is forced to the rear. It remains a factor in the chances, but there is also the factor which we call luck, for lack, possibly, of a better word, and which is actually more potent than the strictly mathematical probability.

There is actually developed in the skilled poker player a sort of sixth sense, consisting of a perception of chances dependent on what he calls luck, no less than on the mathematical probabilities, and this sixth sense is one of the essential qualifications of a really good player. To possess it, he must have a fair comprehension of the mathematical laws, which, as was said, is better obtained by actual play than by the study of permutation, and he must also have the instinctive perception, which is by no means to be described, of the presence of a "run of the cards." This is a quality that may be derided, and even the existence of it may be

denied by mathematicians, since it is founded on no laws that have ever been formulated, but its actual operation is too frequent and too well defined to admit of any doubt in the minds of experienced players.

This perception of chances, while it is here set down as an essential qualification of a good poker player, is by no means the only qualification that is essential. Fully as important as this, if not more so, is the ability to gauge the play of his opponents. It must be remembered that no hand can be held, short of a Royal Flush, which cannot be beaten, and while a player may perhaps be justified in backing a very strong hand, like Four of a Kind, for example, as if it were invincible, yet the good player will never lose sight of the chance that there is against him. An extreme illustration of this would be the case of a man holding four Aces against a single antagonist who has drawn three cards. The most natural thing imaginable would be for him to bet all he had on his hand, providing his antagonist were strong enough to stay, but this, while it would undeniably be sound play from a gambler's standpoint, would not be theoretically perfect poker playing. The distinction may seem arbitrary and even farfetched, but it actually exists. The poker player, while he must be able to calculate the chances in his favor to a nicety, must also keep in mind the chances against him, and to eliminate these latter chances altogether when they are present, is not good poker, theoretically.

The player, then, has a known quantity — his own hand — to back against an unknown quantity — the hand or hands that are out against him. His own hand has a positive and a relative value. Its positive value is determined by its position in the supposititious table in which are set down all the hands that can possibly be held, together with a calculation of the frequency with which they appear in

an indefinite series of deals. This positive value he can determine at a glance. The relative value he can only judge of by means of a complex process of reasoning. Into this problem enter many factors. The first thing he has to judge from is the draw. Knowing how many cards each of the other players drew, he can estimate the probabilities as to what they held before the draw, and his experience has shown him how to calculate the chances of their having filled their hands or bettered them. Then, if he has the last say, he can also form some estimate from the nature of their bets.

Up to this point, Draw Poker may be compared with almost any other game of cards. The rules of the game, when they are once understood, seem very simple, for they are founded on a few cardinal principles, and when these are thoroughly mastered each rule commends itself to the player's mind as being logical and well adapted to the maintenance of these principles.

But up to this point, as was said, Draw Poker is merely a game of cards, and this play is reducible to rules and methods as arbitrary as those which govern whist or any other game. In the case of Poker, however, the entire framework of the game, as a game, is merely rudimentary knowledge, necessarily to be acquired, it is true, but only preparatory to the exercise of the various faculties which are brought into active operation in the actual play.

In other words, the cards are the weapons, and the rules of the game are merely the code that governs the contest in the great game of Draw Poker, which is really an intellectual struggle. The actual play calls for much more than a knowledge of the cards, of the value of hands, and of the rules of the game, for it is in the betting that the skill is displayed, and the betting calls for accurate judgment, quick decision, caution, daring, and cool nerve. The

player must not only judge of what he considers good play on his own part, but he must know what every other player considers good, and must make his estimate of their play a fundamental part of his own.

It is often said that nobody can win at poker unless he holds good cards, and there is some truth in the saying, for it is hardly conceivable that any player could continue a series of bluffs indefinitely, without losing more in a long run than he would win from time to time. A grand coup, however, which may sometimes be made on the pretence of holding cards when one holds nothing of importance, is always among the possibilities of poker, and this fact not only lends fascination to the game, but also sustains the contention that it is not merely a card game.

Again, there is a common belief that the unskilled beginner at the game is more likely to win at his first game, or his first few games, than the old, experienced player, and this alleged fact has been cited as an argument by those who claim that poker is more a game of luck than of skill. The best answer to that argument that has been made was the reply given to a tyro who boasted of his success in Wall Street. "I shall never go back into regular business," he said, "for I can make more in the Street in a day than I could make in a year in my old office." "Yes," said his wise friend, "that's easy. Anybody can make more in a day in Wall Street than he can make in a year in business. The thing to do, however, is to make more in a year."

So, in poker, no man may call himself a player until he shall be able to hold his own, not once or twice, but in a long series of sittings with experienced players. It may be that no one can win forever without cards, but it is unquestionably true that one can lose forever, even with winning hands. The cards are important, but there are other elements of the game of at least equal importance.

The Problem of the Draw.

AN expression commonly used by poker players is "It's all in the draw," the meaning of which is that a player's chance of taking the pot depends entirely on what cards he may get when drawing to those which he selects to hold, out of the original five which he receives in the deal. Properly understood, the saying is one to which no serious objection can be made, for it is certainly true that the character of the hand he holds is liable to be entirely changed by the draw, and the most insignificant pair may be transformed to Four of a Kind, while it is only in the case of a pat hand that the player can tell before the draw what he has to rely upon in the final betting.

Nevertheless, as the saying is commonly used it is delusive, and provocative only of wild and unjustifiable play. It is to be remembered that while a lucky chance in the draw may transform a worthless hand into an almost sure winner, an unlucky draw will leave the player without the chance of winning and minus the amount he has put in the pot, and, moreover, each player in the game has the same chance of bettering. "It's all in the draw," is a remark most frequently made by some player who is seeking to justify himself in making an unjustifiable play.

Taken in its best sense, however, it expresses one of the cardinal principles of the game, and one of the first efforts of the player, after he has mastered the rudiments of the game, should be to exercise proper discretion in the draw. In undertaking to master this, he has to consider that the conditions vary according to the amount already

in the pot, the number of players, the position he occupies at the table with relation to the age, and somewhat according to the run of luck he may be in.

Beginning with the simplest proposition, it may be asked what hand justifies a player in coming in, when there are, say, six players in the game, and it is a straight deal — no jack-pot. The age man has made his ante of one white chip, and the learner sits next to him. There are four other players to hear from before the age is to fill or pass out, and he therefore has to consider first his own hand and then the five possibilities against him. His own hand he knows at a glance. The five other hands he has no means of estimating, excepting on the basis of mathematical probability. It is therefore a simple question of how far up in the table of possible hands his own hand ranks, which must decide whether it is wise or foolish for him to pay two white chips for the privilege of drawing cards. He must remember, also, that after having paid those two, he is liable to be obliged to see any raise that may be made after he comes in, or to sacrifice the two he has chipped in.

Most good players have a simple rule governing their action under these circumstances. Perhaps it may be said that all good players have such a rule, but there are many successful players who vary the application of the rule according to the luck in which they find themselves at the moment. The rule most commonly followed, because it is in accord with the table of chances, is not to come in without a fair-sized pair to draw to. Cautious players throw down any hand that contains less than a pair of tens, unless it be a Four Flush or a Four Straight. Anything better than two tens is universally held to be a good risk, but bolder players will come in on a smaller pair, even as low as deuces, holding that there is an equal chance of getting three of a kind, whatever the pair is, and that three deuces

is worth a play. This seems plausible, but the argument against it is that there are five possibilities against the hand, and that few players will come in on so small a hand; therefore each hand in opposition is likely to be larger. The player sitting next to the age who comes in on less than a pair of sevens or eights is properly to be classed as bold, if not rash.

An analysis of this statement will show that the element of rashness lies in entering into competition with five other players, all of whom are yet to be heard from, without having a hand stronger than, say, sevens. Of course the next player, the first having passed out, will have only four antagonists to look out for, and if he shall elect to go in on sevens he is less rash. Exactly how much less, it is impossible to say positively, since the hands yet to hear from are still unknown quantities, but a rough working rule has been formulated by which a player who fixes a pair of eights as the lowest on which he will venture when he sits next to the age will consider sevens sufficient if he occupies the second seat, sixes if he occupies the third, fives if he occupies the fourth, and any pair at all if he has only the age man to play against. And, of course, it is to be remembered that, as the deal passes, each player occupies the different seats in rotation, so that the two things he has to consider are the seat he occupies and the cards he holds. A conservative play, as nearly safe as poker can ever be said to be safe, would be to start with tens in the first seat, even with seven players in the game, and reduce the size of the pair with each removal from the age in rotation, but never go in on less than a pair of fives unless he has the age. In that case, having already been obliged to chip once, he would have only one chip more to venture and would fill his ante even though he had only deuces.

It must be remembered also that before the draw a Four Flush or a Four Straight is a more valuable hand than a small pair. This is not because the chance of bettering is greater, but because the hand, if filled, becomes a strong one. Theoretically, the Flush should be filled oftener than the Straight, since there are nine cards out of the forty-seven which the player has not seen, any one of which will complete his Four Flush, while there are only eight of the forty-seven which will fill a Four Straight. And in drawing to a Straight, both ends should be open. Drawing to an Ace, Deuce, Trey, Four, or to a Jack, Queen, King, Ace, is the same thing as drawing to an intermediate Straight, since there are only four cards in the forty-seven which will fill, and the chance is too small to justify a draw with odds of no more than six to one against the player's ante.

If there were no other situations than those already described it would always be, as has been seen, a simple matter to decide whether to draw cards or not. As a matter of fact, however, there are many complications constantly arising, each one of which varies the problem. The first of these is the raise before the draw. Supposing some one to have raised before the player has his say, there is a question to be decided before coming in, whether the raise was made on the strength of a good hand, or whether it was a bluff, pure and simple, or whether it was made for the purpose of frightening out as many players as possible. If there be good reason to suspect a bluff, it is good play to follow the rule already decided on, and come in on a pair or better, precisely as if no raise had been made. The chance of improving the hand is not affected by the raise, and although the cost of coming in is increased the odds remain the same, providing no one else is kept out. If the player believes, however, that the

raise was not a mere bluff, but was made on the strength of a good hand, it would be counted good play to throw down anything less than two pairs, unless it were a Four Flush or a Four Straight.

Still another situation arises when the raise is made after the player has put up his ante. It is to be supposed if he has done this that he has cards to draw to — a pair or better — and having his money up he must decide whether his chance is good enough to justify paying more money before he can draw. In making this decision he has to consider his own hand, the number of hands out against him, and the probable strength of the player who made the raise. This last, of course, he can only judge by guessing, and the only guide he has to his guess is his knowledge of the way the other player usually plays. Each successive raise before the draw, if there be more than one, theoretically exposes increased chances against the player, but, on the other hand, each time he sees a raise the odds of the bet are changed so that he may be justified in taking a longer chance.

This statement about the increase of odds requires a word of explanation. In a game of seven players, providing all come in, the odds before the draw stand at 6 to 1 against each player when the pot is completed, but there are constant variations in that before the completion. The only correct way, or safe way, to figure is that the money already put in is gone, and the odds against each player every time he makes an addition to the pot are measured by the proportion which that particular contribution bears to the whole amount in the pot. To make this clear, designate the players by letters. A deals. B antes. If C comes in he gets only 1 to 2, D gets 3 to 2, E 5 to 2, F 7 to 2, and A 9 to 2. If B then fills he is getting 11 to 1, since he can no longer count the ante as his own money. This

explains clearly why B can afford to draw to a much smaller hand than C can.

But supposing A, when it comes his turn, not only goes in with the required ante, but raises it five white chips. The figuring must all be done over, and each man must decide anew as to the advisability of drawing cards, keeping in mind the hand he has to draw to, the odds he gets on the bet he must make before he can draw, and the chances of the five hands out against him, with the question open as to whether A has a strong hand or is bluffing.

B then gets odds of 17 to 6 if he fills and sees the raise. C gets 22 to 5, D 27 to 5, E 32 to 5, and F 37 to 5. But if all stay, by the time it has reached F he will have to face the probability of several strong hands being out, and though the odds in the bet are greatly in his favor, the chances against him are heavy unless he also has a strong hand. And in the meantime there may have been another raise, and new odds have to be figured each time.

Thus far we have only considered the case of an ordinary pot. When we come to the jack-pot we find the conditions entirely different, though the principles remain the same. The odds to be figured are different, and are much greater in favor of coming in, so that a player is justified in drawing to smaller cards than in an ordinary pot, even though it is certain that the opener has Jacks or better. These odds, again, vary according to the amount the pot has been opened for, and on how many players have come in before he has his say. There is also the probability to be estimated of a raise before the draw, so that only the man on the right of the opener or of the last who has raised can know positively what odds he will have to play. The only reason why it is good play to come into a jack-pot on a smaller hand than it is wise to back in an ordinary pot is that the odds in the betting are better, for

it must always be remembered that the player is betting against the whole pot, regardless of how much he may have put into it already. Otherwise the fact of the opener certainly having Jacks or better would indicate the wisdom of staying out with a smaller pair.

"It is a good player who knows when to throw down a good hand." This is a saying which is often heard, and the foregoing analysis of the odds which can be figured, and of those which can only be guessed at, makes the meaning of the saying clear. At all events, enough has been said to show how a player who has studied the tables sufficiently to know the chances of the draw can decide as to the wisdom of drawing cards. That is, the wisdom on the basis of mathematical computation. The further proposition that it is always wise to back your luck is seldom disputed by experienced players, so that it is held good play, or at least justifiable, to draw to a single card, or even a Three Flush or an intermediate Straight, if the player is sitting in exceptional luck. The question of how far to press the luck is practically answered by each player according to his temperament, and since a run of luck in itself consists of a series of contradictions of the law of mathematical probabilities, no positive judgment can be passed, except in extreme cases. The fact that no run of luck can be expected to continue indefinitely should keep the player on the watch for the first indication of its turn.

The importance of studying the chances of the draw and the wisdom of passing out on poor cards are unquestionable. As a matter of experience it can be stated positively that more money is lost at poker in the long run by paying to draw cards when the chances are against the player than is lost by betting on hands after the draw. In the betting, unless one's luck is persistently bad, he will win sometimes, and will have a chance to recoup his losses,

but the player who chips in constantly without holding the cards to justify his ante has no probability of recovering. It is true that he will sometimes make an extraordinary draw, but he will not win enough on such a hand to pay for his frequent chipping in without results.

But after having arrived at an understanding of when it is wise to draw and when it is still wiser to lay down, the learner has still to study how to draw. In this it is only possible to lay down general rules, because the game is one of such complexity as to require the disregard of all rules of play on occasions. Or rather, the grand principle being always regarded, the situations of the game are so varied as to call for a frequent disregard of general rules.

Good players generally "draw to the strength of their hands." That is, a man holding a pair will draw three cards; holding three of a kind he will draw two, and holding two pairs he will draw one. No good player, however, holds himself always bound by this rule, since he may at times wish to deceive his antagonists. And many fairly successful players habitually vary this play by holding an Ace with a pair, believing that the chance of making Aces up on a two-card draw is better than the chance of three of a kind on a three-card draw. Opinions differ as to the wisdom of this, but the general opinion is against holding up a "kicker," unless the player wishes to convey the impression that he has three of a kind. Obviously if he holds up a kicker frequently, he will not convey the impression to those who are familiar with his style of play. This variation from mathematical play, like standing pat on an incomplete hand, is nothing more or less than a bluff and is only justifiable as a means of puzzling the other players and so destroying their confidence in their own hands.

There is one contingency in which a good player will

sometimes deliberately break this rule of drawing to the strength of his hand. He may have stayed in a pot, believing that his hand is as good as any that is out against him, but when it comes to the draw he may see from the number of cards the others take that they all have better chances than he. Supposing he has two pairs. If he draws one card he has four chances in forty-seven of making a Full, and if that Full be a very small one he might feel no confidence in it. If, then, he discards one pair out of his two, he will have a very much smaller chance, but still a chance, of getting four of a kind. It is one of the longest shots to be played, but if he is convinced that his chances with a small Full are worthless, he is justified in taking even that chance.

Another case which more often occurs will show the wisdom of disregarding this general rule on occasions. It frequently happens that a player will hold a good pair, say of Aces, and feel a reasonable confidence in them before he has seen the other players' draw. It may be, however, that one or two other players have stood pat, another has drawn one card and another has drawn two. In such a case a single pair is a poor hand to draw to. There is, of course, a chance of making three of a kind or two pairs, which would be a worthless hand. There is also a possibility of a Full and a still more remote possibility of four Aces, either of which would be worth betting on. It may happen, however, that by discarding one of his Aces he will have a fairly good chance of making an Ace Flush, and his judgment may be that an Ace Flush would be worth playing. In such a case it would be good play to split the Aces and draw to his Four Flush. Otherwise a pair of Aces is esteemed the better hand to draw to.

Enough has been said to indicate that in the draw, as well as in every part of the play, the game of Draw Poker is

played best by the man who best knows when to disregard the general rules of good play. But the beginner, seeing the rules frequently disregarded, is likely to make the mistake of underestimating the importance of rules. In no other part of the game is he more likely to make this mistake than in drawing. He may see a good player sometimes draw to an Ace or even take five cards and occasionally win a pot as a result. The natural effect is to encourage the poor player to do the same thing, but if he does, he will almost invariably suffer, for he will not know enough of the game to understand when such play is utterly indefensible and when it is justifiable. The only safe course, therefore, is first to master the general rules and afterward try to become familiar with the conditions that justify a departure from them.

The Limit.

ONE of the essential characteristics of the game of poker, and probably the one above all others which tends to make it the most fascinating of all games to those who play it long enough to become really familiar with it, is the opportunity it offers, at almost every turn, of forcing one's antagonists into new play. Whether there be two or seven players in the game, each, as it comes his turn, can inject a new problem for the others to solve, and so make his individuality felt, quite apart from the real value of the cards which he may or may not be obliged to show down at the conclusion of the play on each hand. This seems to make the game unique among card contests, since it is entirely feasible to win without winning cards, a thing which is not possible in any other game, and this peculiarity really raises the game to a higher level than that of any other card game, without disparagement to those which call for a thorough knowledge of card values and combinations.

It is therefore necessary for the student of Draw Poker to pay close attention to the influence which the limit exerts on the character of the game. Strictly speaking, the limit, whatever it may be, is in contradiction to the real genius of the game. The ideal game of poker in theory would be one that would be played by six or seven gamesters, each of whom had an unlimited supply of money which he would be entitled to wager without restriction at any stage of the game. In other words, a game played with no limit would afford the fullest opportunity for the

development of all the fine points of the game, and for the display of all the qualities which make up the really first-class poker player.

The necessity for an unlimited supply of money behind each player in the theoretically perfect game becomes apparent when we consider that, practically, there must be a limit to every game of poker, since no man can have unlimited money. The limit that obtains practically, therefore, in every game is fixed by the invariable rule that each player may have a show for his pile. Were this rule to be set aside, it is obvious that the man with the longest purse could easily win at every sitting by the simple expedient of betting more money than his antagonists had.

In the nature of things, therefore, there is and must be a limit in every game of poker, even if that limit be fixed on each bet at the entire amount which any player has to bet. Really, unlimited poker might perhaps have been enjoyed by the gods on Mount Olympus had they understood the game, but as a matter of fact, it would require the lapse of eternity to determine the winning of a single pot if it happened to be contested by two equally confident and obstinate players; so that taking the limit off absolutely would destroy by reaction the interest of the game, while theoretically it would make the game perfect.

Since there must be in practice, therefore, a limit, this limit, whatever it is, is always fixed by common consent among the players. No man can be forced to play beyond the entire amount of his earthly possessions, and if the game involved any possibility of more than that, no sane man would play it, unless, indeed, he played with men poorer than himself, and in that case the game would become systematized grand larceny. And since no rational man can be expected to sit down to any game that is likely to call for a risk of all his possessions, the practice com-

monly is to fix the limit at such a figure as represents as much as any player is willing to risk on a single bet. The unlimited game, so called, is sometimes played, though not frequently, and it is really not unlimited, since any player may at any time bet all he has and declare that amount to be the limit so far as his hand is concerned.

Leaving this kind of game out of consideration, it may be said that there are two ways of fixing the limit beyond which no player is permitted to force his antagonist to go in a single bet. One is to agree upon some sum, whatever it may be, which shall be the largest single bet permissible, and the other is to play table stakes. This term, though commonly well understood among players, requires a few words of explanation. In playing table stakes each player displays in front of him the entire amount for which he desires to play, either in money or chips, as may be convenient. Thereafter during the time he continues to remain in the game he may withdraw a portion of this money or add to it, as he sees fit, but he may not do this while a pot is being played for, if he is one of the contestants for that pot. And he may at any time, when it comes to be his turn to play, bet the entire amount in front of him, or any portion thereof, as he sees fit, but he cannot be forced to bet more than he has in front of him, nor will he be allowed to do so, excepting that, with the consent of the other players, he may add to his pile if he desires to play further on his hand. If any one objects he is not at liberty to do this, and if at any time he bets all he has, that bet becomes the limit in that pot, so far as his interest in it is concerned. If any of the other players desire to bet more on their hands they can do so on the side among themselves.

This statement of the rule governing table stakes is given here merely for the purpose of showing the differ-

ence between this and the more usual limit game. It is evident that the table-stake game affords a freer opportunity for the display of bluffing or skill in play than the so-called limit game, since the player may force the play harder whenever he desires to do so, either for the sake of winning larger stakes or for the purpose of keeping as many antagonists as possible from contesting the pot, which he may desire to do if he has no great confidence in his hand. The table-stake game is preferred on this account by expert players, as giving more scope for the exercise of their skill and a better chance for quick play and large winnings.

The timid or inexperienced player will do well to confine himself to the limit game, at least until he has mastered the principles of poker and learned by practice to estimate the probabilities of the game and his consequent chances of winning or losing on a given hand under given circumstances. While it is true that he has not the same opportunities for brilliant play, he is better guarded against the dangers of rash play, and at the worst is likely to get a longer run for his money. Among players, also, who indulge in the game for the pleasure of play rather than for the possibility of gain, the limit game is commonly preferred.

In theory, of course, when a limit is fixed on the size of a single bet, there will be limit bets only on occasions. That is, the ordinary betting will be for smaller amounts, and only when the occasion calls for an implied assertion of a strong hand will the full amount permitted be pushed forward as a single bet. In practice, however, the tendency is generally toward limit play, especially when the limit is small. Of course, what would be a small limit among well-to-do players would be desperate gambling among poor men, and as there is no arbitrary figure to represent

the difference between wealth and poverty, no standard can be set up as representing a large or a small game.

It may be assumed, however, that for people in ordinary circumstances who play poker for pastime rather than for gambling, anything over a fifty-cent limit means a serious game, if not, indeed, real gambling. As was said, this is a purely arbitrary distinction, and a fifty-cent limit, while it seems insignificant to many, is a very large game to others. Generally speaking, an ordinary evening's play, from three to five hours in duration, among fairly matched players, is likely to mean, at the outside, a loss or gain of not more than fifty times the limit. A greater loss or gain may frequently be made, but it would be considered unusual. One who has no mind to lose more than $20 or $25 in the course of an evening, therefore, would do well to avoid a game where the limit is higher than 50 cents.

It is of the last importance for every player to learn, and thoroughly to understand, how the limit on a single bet necessarily restricts him in his own play and at the same time curtails his chance of being able to calculate the chances from his opponents' play. If the limit be a small one, as was said, the tendency of a majority of players is to bet the limit each time. Thus, in a ten-cent limit game, where the white chips are valued at one cent, the red at five and the blues at ten, the player who bets a white chip is usually either putting out a coaxer in the hope of getting a raise, or he is fearful of a raise and disinclined to venture more than he is forced to on his hand. The bet of a blue chip is no more than he would naturally venture on a hand with any fair chance of success, and is therefore no indication of either a bluff or a good hand. When the limit is higher, say $1 or $2 or more, a comparatively small bet is more common, and as the game has more of what may be called elasticity, there is a better

opportunity of studying the play of one's opponents, and also a better opportunity of varying one's own play in accordance with the cards actually held or according to the theory of a bluff.

Speaking broadly, therefore, it may be said that the limit which gives each player a show for his pile whenever he sees fit to venture it all and demand a show-down, is the one restriction that makes poker practicable as a game among any but multi-millionaires and that without that restriction no one would ever be likely to play it. And further, that each narrowing restriction on the game from the rule of table stakes down to the five-cent limit, which is the smallest game played unless the chips are valued at less than a cent apiece, serves to eliminate some of the charm of the game, but at the same time renders it possible for more people to play it. Thus there are thousands who can play and enjoy the game with a small limit who could not afford to play if the limit were a dollar or more. Even with a small limit, however, it is possible not only to learn the game well, but also to become sufficiently expert to master the principles thoroughly, excepting as to the value of the bluff. That, as was explained, cannot be brought into play with any effect if the limit be small, and the player who is accustomed only to the limit game is therefore obliged to do considerable studying when he begins to play table stakes. While the rules of the game remain unchanged in any other particular, the greater freedom of the table-stake game is apt to confuse and even to terrify the player who has never before played excepting with a bet limit. A greater amount of courage and at the same time greater caution are called for and the two involve the necessity for a greater degree of skill.

A discussion of the limit in poker would not be complete without a reference to what is called Progressive

Poker. This is a game not often played in this country, though it is said to be comparatively common in England. It is not played anywhere excepting among those who are eager for the excitement of high play, and it seems well adapted to produce that excitement, for the play cannot by any degree of caution be made small, while at the same time it can be made as high as the most enthusiastic player can possibly desire.

The limit in this game is not a restriction of the bet to a given amount, but a rule against betting less than a given amount. To illustrate: Six men are playing, and A has the age. He antes, say $1. B looks at his cards and if he desires to play he must put up $2. Up to this point the game is the regular one. C, however, cannot come in by paying $2. If he thinks his cards justify a play he must put up $4. D in turn must put up $8, E $16, and F $32. If, then, A desires to play it costs him $63 in addition to the one he put up originally, and each player in turn must make his ante good to the extent of $64 before he can draw cards. In that case, $1 being the original ante, if all six should come in and no raise should be made beyond the compulsory doubling each time, there would be $384 on the table before the draw.

It must be remembered, however, that each player, when it comes to be his turn to bet, may raise if he chooses, though not less than the amount he is called upon by the rules to bet if he bets at all. Thus C, when he comes in, must put up $4 or drop out. If he desires to raise he may do so, but his raise must be at least $4. If he does not raise, but simply comes in, and D wishes to raise he must raise not less than $8. It will be seen, therefore, that in case all the players make good, each raise made by any one of them means that the pot is at least doubled. Even if some drop out, as some would be likely to do unless the

game were played in Bedlam or some extraordinary hands had been dealt, the geometrical progression in the betting makes important money to be played for, even if only three or four of the players stay in.

When the betting begins after the draw the same rule obtains as to a raise. A player may either see the amount put up by the bettor before him, or he may raise, but if he raise he must raise the full amount of the bet, or in other words double. This would seem to be sufficiently hard play to satisfy the most desperate gambler, and it is, as a matter of fact, much more desperate play than is often seen on this side of the Atlantic, but there is a way of playing it that makes the game even more exciting and the stakes even larger.

This last variation is to make it compulsory on each player, instead of merely seeing the bet that has been made, to double the stake or drop out. Thus if after the draw B should bet $1, C must either lay down his cards or bet $2. D has also, of course, the privilege of resigning, but if he stays it costs him $4. And this doubling is kept up until all have resigned but two. Then, when a player has only one antagonist left, he has the privilege of calling.

It will be readily seen that no such game as this would ever become popular excepting among the most desperate gamblers. As a matter of fact the author has never known of its being played excepting in two or three cliques of the fastest men in London, to whom money was as nearly valueless as money ever can be. It is possible that it is played elsewhere, but the only way in which the average man could ever hope to be able to play it would be by making the chips of almost infinitesimal value, or by the exercise of such self-control as would lead him to stay out of every pot unless he had an extraordinary hand. That method of play would, however, tend to make the play monotonous in-

stead of exciting and the game would thereby defeat itself and nullify the very object of increasing the excitement. Progressive Poker may therefore be properly omitted in commenting on the limit, and the word limit may be taken in its ordinary sense as a rule forbidding the player to bet more than a specified amount, not a rule compelling him to increase a bet or stay out.

The limit, then, while it unquestionably seems to restrict the game of poker in many ways, not merely by confining the probable losses and gains of the play, but by eliminating much of the fierceness of that struggle of wits which makes the game so fascinating, has also served to place poker within the reach of multitudes of players who would not be able to enjoy it if it were played according to the original scope of the game. It is true that if a player sit between two others who raise in turn he is likely to be tempted to continue the contest even when he does not reckon his own hand to be worth a raise, but that is one of the positions in which he needs to exercise that self-control which leads a player to lay down any hand, however good, rather than bet more than he really believes it to be worth. That self-control is one of the first things to cultivate, for without it no one can hope to be a good poker player.

Personality in Poker.

THE first disagreeable surprise the beginner is likely to encounter in learning the game of poker is, of course, the discovery that the hand he fondly imagined was the best one out in a given deal is in reality outclassed by some other player's hand and that the pot he deemed as good as won is the lawful spoil of that other player. This particular form of disappointment, however, is likely to become so familiar in a short time that it will occasion no shock. The most optimistic player does not expect to win on every good hand, and he will soon become accustomed to the thought that anything less than a Royal Flush is liable to be beaten without the implication of even a suspicion of foul play.

The next thing in the game which is likely to fill the player's mouth with ashes and his soul with a fierce longing to go out and kick a few stars out of the firmament is the discovery that he has overestimated his antagonist's strength and has relinquished his own good cards because he had not the courage to back them, when in reality his opponent was betting on eight high and plenty of nerve or something equally absurd. It is doubtful if even the best player that ever lived could entirely overcome the chagrin that follows the realization of having made such a play. As time goes on and he gains experience the good player will learn to control himself so as to give no expression to his feelings, but even time and experience will hardly serve to mitigate the contempt he will feel for himself at having been bluffed.

The experience, nevertheless, is a part of his education and may be made valuable to him if he have the gifts of observation and analysis which will enable him to study understandingly the personality of the man who has successfully carried out the bluff that beat him. The recognition and comprehension of the bluff constitute the higher education in poker, and without some degree of this knowledge no player can hope to attain the third degree. And as the first element of success in the difficult art of bluff is the personality of the player, the best safeguard a player can have against the chances of being bluffed lies in his ability to gauge the personality of those playing against him.

This necessity for an understanding of human nature generally and of individual character in particular is what raises poker above the level of other card games and justifies the assertion of its admirers that it is very high-class training for the man of the world whose affairs lead him into close and frequent contact with all sorts and conditions of men. For it is to be remembered that this study of personality is almost a necessary part of the game, even in such plays as are made strictly on the merits of the cards, with no effort at bluff on the part of any participant. It is fully as important to know when your opponent is not bluffing as it is to know when he is. Indeed the former feat is sometimes classed above the latter, since it leads to the highest achievement of the game, namely, the refusal to back a hand which, according to the mathematical chances of poker, calls for heavy betting.

To illustrate the importance of this, it is worth while to quote here a story told to the author by a Yale student who learned the game at college:

"Our crowd had played together for quite a while," he said, "and I had come to know a few little peculiarities in the play of nearly all the party. On this occasion that

knowledge saved me a good bit of money. Among the others was one man who could not control the expression of his face sufficiently to conceal the fact of his having bettered his hand in the draw whenever he happened to do so. He did not start, or exclaim, or smile, or do any of those obvious things that are only to be expected of infants or expert bluffers on occasions, but there was a slight tightening of the muscles around the mouth that indicated to me that he felt the necessity of giving no indication.

"It happened that a jack-pot was opened by a player on my left. The next two laid down their hands, and this man who sat at my right came in without looking at more than two cards in his hand. He had a way of lifting the corners of his cards one at a time before picking up his hand, and I knew that his invariable rule was not to come in on anything less than a pair of Jacks. It was therefore clear to me, as he doubtless intended it to be, that his first two cards were Jacks or better.

"It was my play next, and as I had four nines pat, I raised it the limit, keeping my eye on the man with the Jacks, more from habit than because of any feeling that it was necessary to do so. As he lifted his third card I saw him give a little start which told me that he had found a third. If it had been his fourth or fifth card that had occasioned the start, it might have been two pairs that he had found, but as it was the third I was morally certain that he had three Jacks at the very least and I looked with great equanimity to see him raise when he came his turn to bet again. If he had done so, I would, of course, have recognized my duty under the circumstances, and would have given him the limit again to think about. But he did not raise, and as the opener had simply made good, and there were only three of us in, of course I could not play my fours any harder just then.

"In the draw the opener took one card, having two small pairs to draw to. My antagonist took two, and as he picked the first one up, I saw the lines about his mouth tighten in the way I have described, whereupon the beauty vanished from my four nines like a morning mist. I knew I was beaten, and although I took one card it was a mere matter of conventionality, and when I called his raise, the opener having bet a white chip and he having raised the limit, as I knew he would, I called the bet purely out of deference to the character of my own hand, feeling certain that his was the better. I would no more have raised him than I would have thrown my chips out of the window.

"There were two or three men looking over my shoulders and when they saw what I had done they fairly howled with amazement. One suggested that I ought to be sent to Sunday-school and another said that furniture should be broken over my body, but if they were astonished and grieved at first they were simply stunned when the other man showed his four Kings. It took me ten minutes to explain why I had done what I did, and even after that I imagine that some of them thought I was a drooling infant who had been struck by luck as by lightning."

The story is a good one and despite the reputation of the narrator as a person of agile imagination and fluent speech it may be true. Certainly there is nothing inherently improbable in it, and if it be true it simply shows that he had mastered the A B C of the poker-player's art. The only notable point in the yarn is the assertion that he quit play on the first bet. Most players would have been sufficiently dazzled by four nines pat to go back with at least one raise as a test of the correctness of their intuition. The play, as the Yale man made it, is only to be considered sound when the absolute correctness of his observation and analysis is conceded. Having entire confi-

dence in that, as he had, the only criticism to be made on his play is that he ought not to have called, but should have thrown his hand down. Had he done that, however, he would not have seen the four Kings, and would have been haunted forever after by a lingering doubt as to whether or not he had been mistaken.

The simple watching of another man's tricks of physical expression of emotion, however, is elementary skill. One of the first things experience teaches is the necessity of overcoming those tricks in one's own play so as to avoid the certainty of betraying the character of the hands held to every close observer around the table. It is perfectly true that many players, perhaps the majority, never succeed in mastering themselves so thoroughly that they give no indication by facial expression, attitude or motion of the hand, of the value of the cards they hold, but on the other hand there are many players, perhaps also a majority, who never learn to read such signs in other players with any degree of accuracy unless they are very pronounced. The best players can do both, and they are the ones who possess an advantage that sometimes seems to amount to clairvoyance, over more impulsive and less guarded individuals.

There is still a more scientific method of studying the play of an opponent which, if thoroughly mastered, would give any player an advantage in the game amounting to cards and spades in cassino. It may be assumed that a good player will speedily learn any of the nervous physical habits of his antagonists that have been referred to and will take all the advantage possible of any such betrayal of his hand that any other player may make. It remains true, however, that the opponent most to be feared is the one who has mastered himself in this respect, or who is gifted by nature with an impassive or expressionless face, and who has

nerves that are too steady to manifest emotion involuntarily. The only thing to do with an antagonist of this description is to study his system of play, for it must never be forgotten for a moment that in poker a man plays not merely his own hand to win, but the unknown cards in the other man's hand to lose, and some judgment of the unknown hand must be formed before any sound bet can be made.

Every man who plays poker plays on some system of his own. It may be that the system is not original with himself, and it may be the same system followed by thousands of other players, or it may be totally unlike any other man's system, so far as he himself knows. It may be a strict adherence to certain well-known rules that are supposed to govern conservative play, or it may embrace such foolhardy stunts as drawing to three Flushes, intermediate Straights, a single Ace, or a King and nine, on the superstition that these two cards, if of the same suit, are lucky. It may even be a system of constantly varying the style of play in order to mislead the other players, but such as it is, every player is tolerably certain to have some sort of system of playing his hands, which he will, as a general thing, adhere to with more or less fidelity. Whatever it may be, any other astute player who watches his play persistently and carefully can usually come pretty near finding out what it is in the course of time. And this system, whatever it may be, forms a part of the personality of the player.

But, on the other hand, there are very few players who do not vary their systems at times. Even the most cautious and conservative player is likely to play more or less boldly when his luck is unusually good. And in various other contingencies it is to be expected that any player will disregard the rules which he has laid down as the best, gen-

erally speaking. Good luck will change some men's play, and bad luck will change that of other men. This depends largely on the temperament of the individual and is also a part of his personality.

Since the personality of every man is an exceedingly complicated proposition, and since it is of the utmost importance to every poker player to be able to judge the man behind the cards he is playing against, as well as to guess at the value of the cards, the study of individual character is a necessary part of the game. To illustrate: The first indication any player can have of the value of the cards held by an opponent is that afforded by the betting before the draw, unless, indeed, his opponent has betrayed himself by some physical sign, it may be a look, or the contraction merely of an eyelid, or it may be some more pronounced sign, like a start of surprise. So far as the scientific game goes the betting is the first. If the next man to the age comes in we have to consider whether he is a careful or a bold player. If he is generally careful it may be assumed that he has at least one pair, yet there is no certainty about this. If he has been having unusually good luck he may intend drawing to an Ace, or even taking five cards. On the other hand, if his luck be very bad he may have become desperate and have put up his ante entirely on the chances of the draw. We are obliged to take his personality into consideration.

The next indication may come in the shape of a raise before the draw, and again we must study personality. The raise may mean a Four Flush, or it may mean nothing less than Three of a Kind, or it may be a bluff, pure and simple. By knowing the character of the player and his habits of play we may form a judgment as to what he holds; but what would be almost positive knowledge in the case of one player will be only a hazardous guess in

another case. And only in accordance with the judgment thus formed can we decide whether the cards we hold are worth the risk of seeing the raise.

After the pot is closed and the draw is in order there comes the next opportunity to judge of what the other man holds before the draw. This is in watching the number of cards he takes, but again we find that we have to take into consideration the personality of the player, or at least the system he usually follows. If he takes three cards, of course the chances are that he has a pair, though it is no unusual thing for a reckless player to draw to an Ace and hold up some other card merely for the sake of conveying the impression that he has a pair. We may suspect this from our knowledge of his play, but we will certainly assume for safety's sake that he has a pair. We may change this opinion later if circumstances indicate that he is bluffing wildly, but it would be an extreme case which would lead to the supposition that a man drawing three cards for which he has had to pay does so on anything less than the strength of one pair. And we must, if we know him to be a cautious player, assume that he has a pair of a certain size or better. What that size may be again depends on his system and on the chance that for some reason or other he has varied his rule at this particular time.

If he has drawn two cards only, the indication is not so clear. If he be one kind of player he will almost certainly have Three of a Kind. If of another kind he may have a pair of Aces and be holding up a kicker merely as a bluff. Other players would be thought to have a pair only and an Ace which they would hold up in the hope of getting another Ace. Others still might be drawing to a Three Flush or even a Three Straight, and yet another class would certainly draw two cards if they held three parts of a Straight Flush.

In the case of a one-card draw the indication is still slighter. A player may draw to two pairs or a Four Flush or Four Straight or even an intermediate Straight, or he may on the other hand hold Three, or even Four of a Kind and draw a single card only in order to disguise the strength of his hand. The possibilities range from "Busted Straight" to a Royal Flush, and these possibilities can hardly be estimated by the personality of the player excepting that we may assume that certain persons will not pay to draw to an intermediate Straight.

At the completion of the draw, therefore, we find that we have been able to form at least a conjectural judgment of the various hands against which we are to compete for the possession of the pot. Even if some player has stood pat we are aided by our knowledge of his personality in deciding whether he really has a pat hand or is bluffing on two pairs or less — even on nothing at all. The betting, however, after the draw will afford still further opportunities for studying the character of our opponent and of profiting by what we already know of his general system of play. We inquire first whether he is one who is likely to bluff, remembering that any player is liable to bluff at times, but that some do it very rarely and only when their position relative to the age is likely to make a bluff effective. If he be an habitual bluffer we feel safe in calling him, provided all the others have dropped out and we have a fairly good hand. If he merely trails along after some other player there is little opportunity to do more than calculate the mathematical probability of our hand being better than his, but even then we may judge something by the manner in which he pushes his chips forward or announces his bet.

When it is remembered that in order to play poker with any degree of success one ought to be able to judge not

of the personality of one other player alone, but that of four or five or six, and to estimate the probabilities as indicated by each one and all of them, the almost infinite complexity of the game becomes at once apparent. Without this study of personality, however, poker would be reduced to the level of a show-down. It would still, by reason of the variety of hands, be a game that might fascinate some persons, but it could be called intellectual no more than could the throwing of dice.

Betting Before the Draw.

DRAW Poker is frequently called the game of contradictions, and the aptness of the description is shown clearly enough in many ways by a study of the effect of different manœuvres in the game as they may be made under different circumstances. None, however, lends itself more readily to the purpose of illustration than the raise, especially when it is made before the draw. According to the condition of the game, and more emphatically according to the position of the player who makes the raise, it may indicate either strength or comparative weakness in his cards, and it may serve either to swell the amount of money in the pot or to keep it from being increased. It is therefore evident that raising before the draw, even when it is done with discretion, may prove as disastrous in its results as a clumsily thrown boomerang and do more injury to the player who essays it than to his adversaries. It is not the only feature of the game, to be sure, that displays this characteristic, for any unsuccessful play, no matter how well conceived or how boldly made, is liable to react in the same way at times, but the raise before the draw presents points of considerable intricacy which should be carefully studied and well understood before the play is ventured on.

According to the position he occupies with reference to the age, a player may raise before the draw either for the purpose of frightening out as many other players as possible or with the desire to make the pot as large as he can. The first play would be made because of a lack of confidence in the chances he would have of improving his

hand in the draw, while the latter would be inspired by his full confidence that no other hand at the table would equal his own. Either object may be attained by the raise if made in the proper position, and either one is liable to be missed if the player fails to take into consideration the number of other players who have already bet and the number who are yet to hear from.

An analysis of some hands actually played will make this clear more readily than any theoretical statement is likely to do. Seven playing and A having the age, C has a pat Flush, ace high. Having confidence, which is fully justified, in the probability of this being a winning hand, he desires, as a matter of course, to make the pot as large as possible before the draw, since the fact of his standing pat and betting freely after the draw will probably keep the others out and so decrease the amount of his probable winnings on the hand. As it is his second say, however, he has to consider that there are five players to hear from after he bets and that no one of them is likely to see his raise unless he holds a reasonably strong hand without the draw. C therefore contents himself with merely coming in and looks for some other player to raise when his say comes.

D comes in with a pair of Kings. E, having nothing to draw to, throws his hand in the discard. F, with three Queens, believes he has a good chance of winning, and raises $1. Had he sat where C does this would have been poor play, for the same reason that operated to prevent C from raising. Sitting where he does, however, there is nothing to criticise, for three men are already in, so that there is a certainty of a pot worth playing for, even though some of the others may decline to play against the presumption of strong cards in his hand. G lays down, having only a pair of eights. A has a pair of Aces and, figuring the percentage of the bet, considers his chances worth

playing for, even against a raise, so he comes in, making his ante good and putting up also the dollar called for by F's raise. B had come in originally on a pair of nines, but he does not consider them strong enough to play against F, who has raised, A, who has seen the raise, and C, yet to hear from. He therefore resigns.

C has now to consider entirely a different situation from the original one. He has only three players against him, and he has heard from each of them. Concerning D, he cannot judge with any accuracy, for D simply came in on his first say, so that he may have a single pair, or he may have been hoping for another player to raise, as C himself was hoping. As to the others, however, C can judge fairly well. F, by raising, undoubtedly indicated a strong hand, since he would not be likely to attempt a bluff sitting where he did. The only question is how strong the hand may be. It might be as low as a pair of Aces, for a great many players with more confidence than judgment esteem two Aces a strong enough hand before the draw to justify a raise. It would not in all probability be less than Aces, and might, of course, be anything at all better than that. C believes, however, that his Ace Flush is better than what F probably holds. And of A he has no fear, although A has seen the raise.

The time has now come, therefore, when C can push the advantage he believes himself to have. It is unquestionably his play to raise back. The question remains, however, as to how much it would be well to raise, the game being for table stakes, but a small one, no one having shown more than $10. To raise $1 would very probably bring all three players in, and so increase the probable winnings, on which C is figuring, by $3; but on the other hand, a larger raise would not be likely to scare F out, and the possibility remains that both A and D, having

shown strength enough to play, would remain even after a second raise. C therefore raises it $5. It is a good play, even though an Ace Flush can easily be beaten. According to the percentage of chances, however, it is a much stronger hand than is likely to be out against it, and C is playing it for what it is worth.

The result justifies the play, which would have been sound in any case. D drops out. He reasons that a pair of Kings is not strong enough to induce him to see two raises. F no longer feels any great confidence in his three Queens, but recognizes that he has a fighting chance, since he may draw another Queen or a pair, so he makes good. A studies not only the chances of the draw, which are fairly good, but also the percentage of the bet he is called on to make. Five dollars on a pair of Aces in a game of this size is a heavy bet, but there is $14 already in the pot, the ante having been 10 cents, calling a quarter. As he gets fourteen to five, therefore, with no further raise possible, he considers it a fair bet, and he comes in.

This play is open to question. The odds of less than three to one in the betting are much less than the probable odds against A's winning, for, although there are only two hands against his Aces, the possibility is that each one of them is stronger than Aces. Of course, the fact that they are stronger really, cannot be taken into account, because A cannot know that they are, but his knowledge of poker should be sufficient to enable him to judge that they are, and his judgment should be sound enough to prevent him from betting against stronger hands before the draw, unless the odds in his favor in the betting were equal to the odds against him in the draw. He has been playing in good luck, however, and determines to back the luck. To how great an extent a player is justified in doing this, is something that cannot be determined

by any rule of percentage or any principles of poker that can be formulated. When the acknowledgment is once made, that luck is a factor in the game, no man can figure with any precision on the weight it will have in any given problem, and there is no possibility of denying that chances do run, at times, in favor of or against particular players in a way that can only be explained by the theory of luck. It is true, too, that the most strictly scientific poker playing is often beaten by pure luck, so that he would be a dogmatic theorist who should deny the wisdom of backing one's luck on occasions.

On this particular occasion it seemed almost as if A's luck was well worth backing, for he caught a third Ace, C having stood pat, as he was compelled to do, and F having drawn two cards without bettering his hand. A's hand was therefore, he considered, probably good against F, the latter having presumably drawn to three of a kind, and A's three Aces being the best of any three in the deck. C, to be sure, had stood pat, but that he would be very likely to do if he had raised it on two large pairs, and A considered with reason that his three Aces were worth a call on a single bet.

It will be seen that the pot was now surely C's property unless he should be bluffed out, and that was not a contingency likely to arise, as no good player would lay down an Ace Flush before a two-card or a three-card draw under ordinary circumstances. At the worst he could call. C, however, sat now in the worst place he could have for a bet, as it was his first say. If he should bet too heavily he would be likely to get only one call or none at all, while if he bet too little he would miss the winnings he might make. He could not expect a raise from either of the other players excepting under the wholly undesirable condition of one of them having made a Full or a Four

of a Kind, so his only hope was to make his bet as large as he thought they would be likely to call. In deciding this point, he took into consideration the fact that the pot now contained $19 — a sum which neither player would be willing to see him take without a call. His judgment was that $5 was about the sum to venture, and accordingly he bet that. F called, on the chance that C might be bluffing, and on the further chance that A might not have bettered his pair in the draw, or that, if he had bettered, he had not made better than three Queens. A called, also on the chance that C was bluffing and on the theory that his own threes were better than any three that F could have. C therefore won $34 in the pot, of which he had himself contributed $11.25, making his gains $22.75.

It will be noticed that in the playing of this hand C sat in a poor place on the first round, but that after F had raised, C's place was almost the best for the purpose of a second raise, and that after the draw it was again a poor place for him to have. A different deal, that would have given C the age, would have entirely changed the play, provided that all the players had shown equal judgment, and might have produced a different result. To illustrate this it is worth while to analyze the playing of another deal, very similar to this, out of the great number of which the author has made a record. The hands were not exactly the same. That would be remarkable indeed, but they were nearly like those described and were held in similar order, G having the age, and having put up the same ten-cent blind, calling a quarter. A, having first say and holding Aces and Tens before the draw, came in without raising. B also came in, having two Queens. C held three Jacks, and with a view to keeping some of the others out, his hand being one that might easily be beaten in the draw, raised it $2. D, having nothing,

dropped out. E had eights up and saw the raise. F, having three sevens, was also anxious to make the circle narrower, and he raised it again $2. This gave an excellent opportunity to G, who held a King Flush, to push the betting along. His hand would have justified a larger raise than he made, but he figured that he might get still another raise before the draw, and that if he should not, there would still be betting after the draw, three hands being almost certainly strong, and one yet to hear from on the first raise. H therefore saw C and F and put up $3 more.

A had then to consider whether Aces and Tens were worth betting $7 on when there was $16.50 in the pot already. He decided that they were, because B, C, E and F were yet to hear from and the odds were likely to be still larger in his favor provided he should fill, as he had a reasonable chance of doing. B, however, saw no use in playing a pair of Queens against the game as it stood, and he threw his cards on the table. C, E and F made good, none of them feeling himself strong enough to raise again. There were therefore $22.25 in the pot before the draw.

In the draw each drew to the strength of his hand. A might very possibly have stood pat on his Aces up as a bluff, had it not been that G, having first call, stood pat, and A decided that it would be too difficult to bluff against a pat hand. It happened that no one bettered, and G, having the strongest hand and also having the age, might be expected to be able to force the playing. His standing pat, however, had inspired the others with caution, and A bet only a white chip. None of the others raised until it came to G, when he raised it $5. This gave A one chance to bluff on his two pairs and he did so, though the play was not a good one, since a one-card draw is tolerably

certain to be called if there is anything of value out against it. A raised it $5, however, on a venture, and C trailed along. G had then to decide whether to call A or to raise again. There was a probability that A might have filled either a Flush or a Full. If it were a Flush G's hand would be worth another raise; if A had a Full, it would be worth nothing. So he decided, correctly, to call.

In this hand the pot was swelled to $52.50 and was won, as the other was, by a High Flush, but the winner did not really press his advantage as hard as C did in the first hand described, though he got considerably more profit. The difference lay almost altogether in the matter of position, for there was only one play made outside of A's bluff that was open to criticism. That was C's last play. He put up $10 against the $37.50 already in the pot, when the chances were greatly in excess of those odds that he could not win. It was poor play and showed that C had much to learn regarding the wisdom of laying down even strong cards when the chances are against them. Occasionally a pot may be lost by doing it, but much money is saved by it in the long run.

Enough has been said in the analysis of the play in two deals to indicate the advantage of the position to one who is attempting to bluff. It would not be too strong, perhaps, to say that it indicates the folly of undertaking to bluff if one sits in a poor position. A bluff is often, of course, the result of the inspiration of the moment and is born of a conviction that the other man lacks confidence in his hand even if it be a reasonably strong one, but perhaps still oftener it is a deliberately planned movement in which advantage is taken of every favoring circumstance to impress one's adversaries with the strength of one's hand, regardless of what the hand contains.

To obtain the greatest effect in this series of manœuvres,

supposing the bluff to be deliberately planned, it is highly advisable to begin before the draw, and a judicious raise at that stage of the play will often create an impression that may be strengthened two or three times afterward, regardless of whatever skill the bluffer may have as an actor, while that skill may also, of course, serve as a great help in the bluff.

This raise before the draw, if it be done to create a fictitious appearance, is seldom attempted if any other player has shown signs of strength, nor is it usually considered good play unless all or nearly all the other players have been heard from. If the would-be bluffer holds the age, he is of course placed to the best advantage, but if he be the dealer, sitting next before the age, with six or seven playing, the position is a good one.

The next advantage of this position comes in the draw. Of course, the dealer serves himself last, thus knowing what each other player takes before being compelled even to decide what he will take for himself. If, then, he has made a bluffing bet on a single pair and everybody else has drawn three, he may conclude to take two, in order to give the impression that he has three of a kind, or even to draw one, to set his opponents guessing as to whether he is drawing to two pairs or a four-straight or a four-flush. Or he may decide to stand pat, which, together with the raise before the draw, is a strong bluff. After this, of course, the opportunities of the betting after the draw remain, and the bluff may again be strengthened. Not one of these three chances, it will be observed, is available to the first, second or third player after the age in anything like the same degree that they are to the fifth or sixth man after the age. It remains true, however, that a bluff made almost under any circumstances is the stronger if it be begun with a bet before the draw.

As to Laying Down.

ALL problems in poker — and their name is legion — are finally resolved into one crucial question, "Shall we bet or lay down?" It must always be remembered that up to the moment of the call or the surrender which decides the ownership of the pot each feature of the play is in anticipation of some further development. Whatever is done before the draw is done tentatively. The player either has enough in his hand to justify the risk of his chips or he believes that he has a chance of bettering his hand and that this chance is good enough, considering the amount in the pot, to justify a bet at the percentage offered. And after the draw no bettor, excepting the player who has the last say, can know whether the bet he puts up will be all he will be called to venture to protect his chance for the pot.

This privilege of the last say is always liable to be transferred from one player to another by a raise. Before the draw, and on the first round of bets after the draw, provided no one raises, it belongs to the age, or to the player on the dealer's left, an arbitrary arrangement necessary in order to preserve the due order of betting, but though, according to the rules, the age never passes, its value disappears the moment a raise is made by any player excepting the first one to the left of the age. It remains true, therefore, that the final say can only be had by the last player who remains in, after all the others, excepting the man who raised, have had the opportunity to play or lay down.

It is only the man who has this last say, therefore, who can know whether his bet is the final one. If there remains with any one the privilege of raising, all the others who desire to remain in must see the raise in order to do so. Obviously no man can know positively whether he is going to win or lose if he bets, and on his judgment in answering this grand question whenever the play comes to him depends his success in poker. If he holds a Royal Flush he may know that he cannot lose, but he cannot know that he will win, since there may be a Royal Flush out against him.

It is equally obvious that no positive rule can be laid down by which a man can determine positively whether any bet will win. If it were possible to do this, poker would no longer be a game of chance, or, in fact, a game in any sense of the word. It is entirely possible, however, to analyze the playing of a few sample hands, and form an opinion of the judgment shown by each player, thus arriving at certain general rules of value in actual play.

The following hands, held in actual play by a party of seven, will serve as an example, and the way they were played was not only interesting, but instructive. Before the draw, A, who held the age, had two pairs, Aces and Tens. B held a pair of Queens, C a Four Flush of diamonds, nine, seven, four and three; D Queen High, E three fours, F a pair of sixes and G a pair of Jacks.

The ante was 10 cents, calling a quarter. B came in, holding his Queens to be well worth a bet considering the possibilities of the draw. C also came in. Had he held the age, no raise being made before it came to him, he would have raised on the theory that he had nine chances in forty-seven of making a tolerably strong hand, and, moreover, that the raise would be likely to force some of his competitors out, thereby decreasing the chances of his

Flush being beaten in case he should get it. Sitting where he did, however, he considered the chance of some one else making the raise to be fairly good, and his possible hand strong enough to play against any single raise, even with all seven players in. This theory of play would not be followed, however, by all good players. It would be equally defensible for him to have raised, since some of the five players yet to hear from would be likely to drop out if he raised, and the Flush he would hold, even by filling, would hardly be strong enough for him to desire too much competition. The play would be sound either way.

D having no pair and no prospect of a Straight or a Flush, passed out, as any player of even moderate caution would do. E raised it the limit, which was 50 cents, entirely for the purpose of driving the others out. His hand before the draw was undoubtedly strong, but the chance of its being beaten in the draw, if all should stay in, was fully equal to his chance of bettering, which he could only do by drawing a fourth four or a pair of some other denomination.

F, having only a pair of sixes to draw to, had either to relinquish his hand or to put up 75 cents to play, when there was only $1.35 in the pot, with two players yet to hear from and two more who might possibly raise back when it came their turn to make good. Instead of dropping out, as ordinary caution would have dictated, however, he put up his 75 cents. Of course he had a fair chance of making three sixes, a remote chance of making a Full House in the draw, and a still more remote chance of making four sixes. As opposed to these chances there was a moral certainty that the three players already in had at least as good cards, and probably better than he held, while E had almost certainly a strong

hand. If there had been a large sum already in the pot, the play might have been justified by the percentage of the bet, but as it was it was reckless in the extreme.

G, playing a more cautious game, dropped his two Jacks. He would undoubtedly have come in if it had not been for E's raise, since he had a fair chance of making three Jacks, which would have been a strong enough hand to play. His passing out, however, was better play than it would have been to put up 75 cents against four hands already in, one of which (E) was presumably a strong one, another of which (F) was probably as good or better than his own and the other two probably as good. Moreover, there was only $2.10 in the pot, so that he would have got less than three to one odds, and there were still three chances remaining that he would be obliged to put up more money before the preliminary betting would end.

A, having Aces up, came in. In the first place, it cost him only 65 cents against the $2.10 in the pot, so that his odds were better than G's (for the amount of his ante is not to be reckoned as a part of his bet, since that was already gone), and, secondly, he held a moderately strong hand, with four chances in forty-seven of making a very strong one. This hand is considered by many players strong enough to justify a second raise, but B and C were yet to hear from on the original raise and there remained the possibility that either one or both of them would raise. A's play, therefore, in simply making good was unquestionably sound.

It remained for B and C to come in on E's raise, but B, being a conservative player at all times, and having had poor luck for the preceding half hour, refused to play his single pair against a raise that had been seen by two other players. In this case run of luck is ordinarily held to be

a justifiable factor in determining the play, and while his coming in, if he had decided to play, would not have been open to criticism, his passing out was equally good poker.

C, on the other hand, having his Four Flush, put up his 50 cents unhesitatingly, and raised it again 50 cents. It will be observed that his position this time was altogether different from what it was when he came in originally. Then he had five players to hear from with no means of judging their hands. Moreover, there was only 35 cents in the pot. Now, however, there was $2.75 in the pot, which he made $3.25 by seeing E's raise. His own raise of 50 cents, therefore, was good poker, since he had only three antagonists and might hope to force one or possibly two of them out. He judged E's hand to be strong, since he had made the first raise, but thought that F and A had come in hoping to better, but having only a prospect to play on. His judgment of the hands was accurate, as it happened, but his hope of forcing F and A to retire proved abortive. All three saw his raise and the draw was in order.

It is to be noticed that up to this point the play has been correct with the exception of the way F had backed an almost worthless hand. He was certainly venturesome in putting up 75 cents in the first place on so long a chance as bettering sixes, but he made a further error, though a very common one, when he put up 50 cents more on the second raise. His argument was that, having bet the first time, he was warranted in betting more to protect what he had in already. This line of reasoning is frequently followed, though its fallacy is clear. His chance of winning was too small to justify any play, and although he got better odds in the second bet, there being $4.25 in the pot against the 50 cents he put in, the odds against his filling were even greater.

The draw changed the condition materially, as it frequently does, and by one of those chances that seem to discredit all rules of play, the only man who had played poor poker was the only man to better his hand. F drew a third six and two nines, making a Full House, while the other three, each drawing to the strength of his hand, got nothing of value. It being C's first bet, he passed out. Three presumably strong hands were out against his Four Flush and it would have been hopeless for him to attempt to bluff. E bet the limit, hoping to impress the others with the strength of the Three of a Kind with which they credited him, seeing that he had drawn two cards. F, having now a Full, raised him the limit, whereupon A passed out. Aces up had no place in a struggle against Three of a Kind in one hand and a pair that had evidently been bettered in the other. Had he had only F to play against he would have called, for F would have bet even if he had only made a second pair, but the fact of F having raised E, who only drew two cards, was evidence that he had at least three big ones. Therefore A's play was correct.

It remained for E to decide whether to call or resign, either of which would have been justifiable, since his Three of a Kind was very small. He decided to call on the theory that F was possibly bluffing, and there was $6.75 in the pot. His further venture of 50 cents was therefore good play, though it lost, and the only man who had overplayed his hand, recklessly, won the money. As was said, circumstances like these (and such things are common in poker) apparently discredit the rules which undoubtedly govern good play in the game. It is not to be called an extraordinary thing that a player should make a Full House drawing to a single pair, and a Full House is unquestionably a strong enough hand to justify backing heavily. It

must not be forgotten, however, that although such a draw is occasionally made, the odds against it are very heavy.

F, however, in paying for the chance of getting it, made two bets, in neither of which did he get odds approximating to those against him in the draw. The first time he put up 75 cents against $1.35 that was in the pot, thus getting less than two to one. The second time he put up 50 cents against $4.25 in the pot, getting seventeen to two. Even the latter was wholly out of proportion to the odds of the draw, and the man who continues to play in this fashion will eventually go broke, despite the occasional winning of a pot in the manner described.

The foregoing deal, though it had a wholly fortuitous outcome, was by no means to be classed as a phenomenal one. It was hardly unusual enough to excite more than a passing remark, and has been described in detail here merely for the purpose of analyzing the play and showing how correct poker is always liable to be beaten by a fluke. A deal that occurred in the same sitting only a few minutes later, however, was remarkable enough to warrant description for the sake of showing how good play will win against good cards.

The deal was again with G, giving A the age. The ante was the same, A having put up 10 cents for a quarter. In the deal A got the seven, eight, nine and ten of diamonds; B three sixes, C Kings and nines, D a pair of Aces, E ten high, F a pair of Jacks and G the Queen, nine, seven and six of hearts. B put up his quarter, C came in, D followed, E passed, F came in and G did likewise. A, having a chance for a Straight Flush, a Flush or a Straight, raised it the limit. B, C, D and G stayed, F dropping out.

The play thus far was above criticism. G might have raised on the strength of his Four Flush, as A was the only

remaining player to hear from, but the wisdom of such a raise is open to dispute, and no criticism is due. A, on the other hand, had only a Four Flush, but his chance was much better, and if he should happen to catch the Straight Flush he would want as large a pot as possible to play for, so his raise was unquestionably good play. F had a fair chance only and was justified in passing, while the others were equally justified in staying.

In the draw A caught the Jack of clubs, making a Straight, Jack high. B and C failed to better, D got a third Ace and G drew a spade. B bet the limit, C stayed, D raised, making it a dollar to play, and G passed. A raised again, and B stayed, still having confidence enough in his three sixes to make him call. C passed and D raised it again.

This play raises a question. Only three players were left in, and A had drawn only one card, while B had drawn two. D had no fear of B, since his own three would beat those to which B had probably drawn, and as threes are hard to better in the draw, it was probable that B had not bettered. The real struggle was therefore between A and D, and D, realizing this, saw his opportunity for a bold play. He sat in the right place for it, since, even if A should raise back again, he could make a show of strength by still another raise, and so possibly force A to resign in case he was bluffing or had filled only a small Straight. As was said, D made the play.

A had then to judge of the two hands against him. He estimated B's hand correctly as Three of a Kind, and consequently had no fear of him. D, however, had drawn three cards, so his hand was problematical. The chances were that he had only Three of a Kind, but on the other hand he had not only seen A's raise after A had drawn one, but he had raised back, indicating either a bluff or a

strong hand. A's own hand was not very strong, but he decided, in order to test D still further, to raise again, which he did, and B passed out.

D then had to consider whether A had filled or was bluffing, either of which was possible. He knew, however, that A seldom bluffed, and he decided that he had probably filled. In that case, of course, D's hand was worthless, and his only chance of winning the pot was by making A believe that he held a stronger hand than he really had. A call would have been counted perfectly sound play, on the theory that A might not have filled, and that there was enough in the pot to justify paying 50 cents to see. For there was in fact $10.50 on the table.

D decided, however, not to call. There remained a chance that A had filled a small Straight, in which case a call would give him the pot, but if D should raise there was a possibility that A would believe himself beaten and would lay down his cards, reasoning that D would scarcely go so far as to raise three times unless he had something better than Three of a Kind. It was not a promising chance, but D decided to risk a dollar on it against the $10.50, and he accordingly raised again.

A had now to decide whether to throw down his cards, to call or to raise again. It was a test of nerve, for he had to judge D's play either as a bluff or as evidence of a strong hand, stronger in all probability than A's. He might have Three of a Kind, or a Full House, or Fours. In the first case A would win, but against either of the others he would lose. It would certainly have been sound play to call, but D had succeeded in doing what he had undertaken to do by his successive raises, namely, to convince A that he had a strong hand, and A, losing his courage, lost his nerve entirely and threw down his cards. It was indubitable proof of the superiority of D's play, for although D sat

in a good position for a bluff as the play ran, A had also a good position and should have played his hand, at least to the extent of a call.

It may be argued that it was A's error rather than D's good play that gave the latter the pot, but A would have made no such error had it not been for the consummate judgment and excellent nerve which enabled D to see his opportunity and press his play sufficiently to overawe A. The hand was one which illustrates very well the way in which a good player can deceive a poorer one as to the value of his cards and so win against a stronger competitor.

It shows, too, the great advantage that may lie in position. Had D sat where B did and been obliged to bet first, C would have come in as he did after B's bet, and B, sitting in D's place with three fours, would very probably have raised, though possibly he would not with two one-card draws to hear from. Had he raised, however, A would have raised again, as he did, and D would then have had two raises to see before he could himself raise. It would have left him in doubt as to all three hands, for C had not at that time dropped out, and the prospect of a successful bluff would not have been as good. For it is certain that D's actual play was of the nature of a bluff, though there was all the time the possibility that his cards were the best, and it was not, therefore, a pure bluff.

Had it been purely a bluff the advantage of the position would have been equally great, and unless he had betrayed his weakness by his manner he would have won on the same play even though he had not bettered his original pair. The chance of the bluff, it is easily to be seen, depends largely on position, and though bluffing may be successful even when poorly done, the inexperienced player will do well to avoid trying it until he shall have studied the sequence of the betting.

Playing a Strong Hand.

THE experienced player who holds a strong hand in the game of Draw Poker is by no means satisfied when he captures the pot, if he looks back over his play and sees that by more skilful manœuvring he might have made more. The mere winning of a hand, gratifying as it is, may be accomplished by any beginner who holds good cards. It is no test of skill and no fair illustration of the possibilities of the game, for in every case the show-down does the final work, providing there is a call, and a Royal Flush is as efficacious in the hands of a tyro as in the hands of the best player living. But while it is equally as efficacious, it is not likely to be equally valuable, since the beginner cannot hope to push his advantage as an old player would, especially if he sits in a position in which a raise is a clear indication of his strength.

The advantages that come from a perfect nerve, and the power to conceal all emotion, are too well understood to need explanation. The man who shows elation, confidence or doubt in the expression of his countenance, or by any trick of action, is at the mercy of his opponents to a great extent, and no one can hope for much success at the game until he has learned to control his features, and to handle his cards in as nearly an automatic fashion as possible. An instance of this was given by a fairly good player who was beaten all one winter by those who played with him in a friendly game. He was puzzled for a long time, and not until the other players in true friendly fashion told him of his habit, did he realize that he had been advertising

every good hand he had held. He had unconsciously formed the habit of laying his cards down in front of him, face down, of course, whenever they were sufficient to inspire him with confidence, and handling his chips as he looked around to see what the others were doing. It was so simple and transparent a trick that he could hardly believe, when he was first told, that he had been guilty of it, for he had schooled his features to impassibility and did not imagine that he showed his strength in any way excepting by his betting.

In this particular, however, it is impossible to lay down any rules, since the nervous player is tolerably sure to betray his hand in some fashion to those who are shrewd enough to read him. A story has been told of two superb players being pitted against each other when the stakes were extraordinarily heavy, and when one of the two had an unusually strong hand. The other was bluffing and had done it so skilfully that the man with the better hand was fairly puzzled. The bluffer had made a large raise, and the other hesitated in his play, fearing that he was beaten, but unwilling even to call with so good a hand as he held, and desirous of raising back. He looked long and intently at the bluffer, seeking to find some indication in his face by which his strength could be estimated, but the other's features told no story whatever, and he was about to call, when he saw a tiny drop of perspiration start out on the other's forehead. It was enough. The player who was really strong, without an instant of further pause, shoved forward twice the amount of the other's raise, and the bluffer threw down his cards.

Such instances show how men of shrewd perception can learn to read the play of others, but no treatise can be written from which the art can be learned. There is, however, a vast field of study in the play itself, which can be mas-

tered by application, and which is as fertile in results as the mental skill which sometimes seems to approach clairvoyance. Without this technical knowledge, indeed, the clairvoyant power is crippled, and though it will produce results, the results will not be so considerable as they might.

A deal played by six expert players in a New York club will illustrate this by showing how the holder of the strongest cards won more money by refusing several times to raise than he would probably have made had he played, as a novice would, to the strength of his hand. A was dealing, so that B had the age, and the ante was 50 cents, calling a dollar, the game being for table stakes. C discovered Queens and sevens, so he came in with $1. D had four tens pat, and had he sat in a different position would undoubtedly have raised the bet, but four men being yet to hear from, he contented himself with simply putting in his dollar. E, having Aces and Jacks, raised it $5. F, with three Kings, might be expected to raise it again, but he also was playing a waiting game, and feared the effect of a double raise on the other players. He therefore simply saw the raise. A, however, had an Ace Flush and he raised it $10. B, having nothing, relinquished his blind.

Up to this point the only really notable thing about the deal was the unusual strength of the hands. Five reasonably strong hands, two of them being very strong, are not often seen before the draw, but in this case they were out and the record was verified by all the players after the game was over. The play on this first round had been sound, but not remarkable. On the second round, however, there was some clever play. C felt that his show on Queens up was a dubious one, but the hope of a Queen Full carried him along, and he put up his $15, thinking that if the others all filled, he would have four to one in the betting, and a possible chance of winning. It was then D's say,

and, had he raised, his play could not have been criticised, since he had secured two strong antagonists and might reasonably have expected a large pot. He reasoned, however, that if he concealed his strength at that stage of the betting, there might be more raising, even without his aid, so he simply made good. It was close reasoning and clever play.

E studied his hand and, with his possible chance of a Full, decided to raise again. It was over-playing his hand, but he had been playing in luck and had more confidence than was good for him. He put up $20, making a raise of $10 over A's raise. F considered his chances on three Kings good enough for the money, and he made good again, but decided wisely that it was no place for him to raise. A continued to have confidence in his Ace Flush, and, to D's great delight, he raised it ten more. C by this time had lost confidence in his Queens up, but remembering that there was $120.50 in the pot and that it only cost him $20 to go in, he made good.

It was up to D again, and there was a strong enough temptation to make an average player raise in turn, and, had he made the play, it would have been justified. He contented himself again, however, with merely seeing the bets that had been made, reasoning that he had the best position at the table as well as probably the best hand, there being a confident player on each side of him who would probably push the struggle, and remembering, furthermore, that he would have a chance in the draw to puzzle his opponents, and so probably increase his profits. E and F each made good and there was $180.50 in the pot before the draw.

When cards were called for C took one and failed to better. D also took one and looked at it with ostentatious indifference, hoping to impress the other players with the

notion that he was drawing to a Straight or a Flush, and was afraid of betraying himself. E caught a third Jack in the draw, making a Full Hand, F failed to better his hand and A, of course, stood pat.

The betting was then in order and C put up a white chip. D saw it and E raised it $10. F had only $3 left and he called for a show with that. A raised it $15 and C threw down his hand. It looked then as if D might not get another chance to raise, and that if he wanted to realize on his four tens it was high time for him to do something more than trail along. He had watched E closely, however, and felt sure that he had bettered his hand, in which case, having raised twice before the draw, he would be pretty certain to raise at least once more, so D merely saw the two raises. His judgment was correct and the longest chance he had taken thus far turned in his favor, for E, with justifiable confidence in his Jack Full, raised it $25. A had now to consider that he had two one-card draws against him and that his Ace Flush might easily be outclassed. There remained, however, the chance that it might be good, and he saw the raise simply as a matter of percentage, there being $285.50 in the pot, against which he had only to put $25, with only one man to hear from, and he being one who had not yet raised.

D's last chance had now come, and the only question was how much of a raise the two others would stand. He decided that if he made a large bet, they would both think he was bluffing and that E might raise again, while A was likely to drop out even if D should only make a small raise and E should raise again. On this reasoning he pushed forward $75, being the amount of E's raise, and $50 more.

His play had been masterly throughout, and this last bet was as clever as anything he had done before, for, as he calculated, the presumption was strong that he was bluff-

ing. E retained his confidence in his Jack Full sufficiently to raise him $50, and A dropped out, saying, "If it were a question of calling either one of you I'd do it."

D now having only one antagonist, and feeling sure that there was a Full Hand against his four tens, had one chance remaining. If he could induce E to continue to believe that he was bluffing he might get several bets more, so he raised it again $50. E, however, counting up his chips, found only about $70 in front of him, and not thinking it worth while to make a small raise, called. D therefore took in $635.50 on his hand, which was probably several times as much as he would have taken had he pushed the game at first.

There is no better way of demonstrating a theory like this than by contrasting the play of one collection of hands with that of another, and noting the difference in the result. With this in view the author has noted many hundreds of deals and kept memoranda of the way they have been played. The difference is amazing to those who play poker in the comfortable, happy-go-lucky theory that the best cards are sure to win in the long run, excepting in the case of an occasional bluff, and that the science of the betting is a comparatively unimportant part of the game.

To prove, therefore, the excellence of the play just described it is worth while to compare it with a very similar collection of hands, held on another occasion by another party of players. In this hand A, the dealer, held before the draw a Deuce Full on Jacks, pat. B, the age man, had a pair of Kings; C had three sevens; D had four Queens; E had eight, seven, six and five of clubs; and F a pair of Aces.

It will be noticed that the commanding hand was in the same relative position to the draw as in the deal described above, while there was a general similarity also

shown in the other hands, which, as was said, is the reason this particular deal was selected as a comparison. One striking difference exists, however, in that E, instead of having a chance for an Ace Full or a Jack Full, had a chance for either a Flush or a Straight, and a small chance for a Straight Flush.

In the play before the draw, the ante being, as in the other case, 50 cents, calling a dollar, and the game for table stakes, C, who was first man to come in, put up his dollar. D with his fours raised it $5, thereby notifying the four men yet to hear from that he was either very strong or intending to bluff. The raise was of course justified by the strength of his hand, but it was decidedly ill-advised, since all the others were likely to stay out altogether and leave him with only $1.50 winnings to show for a remarkably strong hand.

As it happened, however, there were other strong hands out. E, being more prudent, declined to raise on the strength of his Four-Straight Flush, as he might have done if he had had better position, and merely put up his $6, waiting to see what the others would do. F, looking for a possible third Ace and, perhaps, even more in the draw, stayed, also without raising. A raised it $10, and B dropped out, believing that a single pair, even of Kings, had no place in a struggle against two raises. C, however, made good, believing that three sevens had a chance in the draw.

D had now knowledge of only one strong opponent, and thinking that the others would probably drop out in case he should raise, he simply made good. This was doubtless good reasoning, but he had made his mistake already, and E made good while F dropped out, not caring to push a single pair any further.

There was then only $70.50 in the pot as against the $180.50 before the draw which D had secured in the former

hand under almost precisely similar conditions, by lying low and letting the others do the struggling. It is likely, as will be seen by analysis, that if the holder of the four Queens had been as shrewd as the holder of the four tens was he might have done equally well, for E would very probably have made a raise on his Four-Straight Flush if D had not, and A would undoubtedly have raised back, as he did, on his pat Full. This would even have afforded D an opportunity to raise again to better advantage had he chosen to do so when it came to him the second time to play. Having forced the play at the beginning, however, his moderation on the second round was justifiable if not particularly clever. He had forced out two players before the draw and only retained three antagonists by reason of the accident of their having strong hands, or at least, in the case of E, the chance for a tremendously strong one.

In the draw C failed to better and D, instead of drawing one card, stood pat. This was a variation of the usual play of drawing one card to Four of a Kind, and it is only fair to say that he adopted the play he did with a view of misleading A, whom he considered his only antagonist. Believing that A had a pat hand, as in reality he had, D hoped that A would believe his own hand to be probably the stronger, and would so be encouraged to bet. The strategy was successful so far as A was concerned, but D forgot that he had also to impress E and C, and that they, who had not shown strength by raising, would be more likely to fear him standing pat than they would if he drew one card, thereby indicating the probability of his holding two pairs or an imperfect hand.

The next to draw was E, who caught the ten of clubs, making a strong Flush, but not a Straight Flush. F and B were already out and A stood pat, as he was obliged to do.

C, having first say, put up a white chip, and D, hav-

ing seen that his previous raise was poor play, and being sure that A would raise, merely came in. This was doubtful play, as he had betrayed his strength twice already, first by raising before there was anything in the pot to speak of and next by standing pat, so that the others were already more or less afraid of him, and his refusal to raise was plainly a bid for a raise from some one else. It therefore failed to accomplish anything.

E, knowing that A would almost certainly raise, also contented himself with coming in, and A raised it $5. He was also looking for D to raise, and the play had not been hard enough to provoke a raise of a greater amount. C had then to consider whether his three sevens were good against two pat hands, and very properly decided that they were not. He would have played them against two one-card draws and one pat hand, which he would have had to face if D had drawn one card, for he would have figured that the standing pat might be a bluff, and he would at least have stayed in on one bet, but his laying down was not only wise in view of the hands actually held, but it was good play, even according to what the game had developed.

D had now only two to play against, and as E had not raised the first time, he hardly considered it likely that he would on the second round. Considering it, therefore, his last chance, he raised A $10. E, therefore, was in no position to raise, though he might possibly have done so if D had not, for while A might easily beat his ten high Flush, it might also be that the other two, A and D, both had Straights or smaller Flushes. As it was, however, both having raised, he considered that he was playing hard enough when he made good. He therefore trailed along.

The struggle was now plainly enough between A and D. Had D drawn a single card, as most players do, holding Fours, A would have given him another raise unhesitat-

ingly, though he would not have pushed a deuce full too far, but as it was he hesitated for some time. Eventually he did raise $10, and so gave D his last chance, which he took advantage of by raising it $25.

This put E in a hard position. He hardly considered his Flush good, but there was still a chance that it might be, and he had therefore to calculate the odds in the betting. There was $162.50 in the pot, and it cost him $35 to come in, with a possibility of a further raise. He would have been justified either in laying down or playing, but he decided to play. A also called and D of course took the pot. The difference between the character of his play and that of the holder of four tens in the other deal is shown conclusively by a comparison of the results, for he took in only $222.50, of which he had himself contributed $66.50, leaving his winnings only $156.

The holder of the four tens, however, had made a winning of $399. It is true that he was obliged to bet $236.50 to do this, but the risk was too small to be seriously considered in either case. It was actually greater in the smaller pot than it was in the larger, since there was a possibility of a Straight Flush being filled. This chance, even with a Four-Straight Flush out before the draw, is hardly enough, however, to deter any good poker player from backing Four of a Kind to the extent of his pile.

The holder of the four Queens made two distinct errors in his play, and it is worth while to consider how he came to make them, for they both came from his failure to grasp the opportunities or to understand the principles of play in the game of poker. In the first place, his raising when there was only $1.50 in the pot and four more players to hear from, including the age man, came from his surprise and premature exultation over a remarkably strong hand. Had he been a less emotional player he would have

seen the folly of what he did before doing it, but his impulse was too strong for him on the instant, and impulses are dangerous in poker.

Again, in refusing to draw, as he might very properly have done if there had been only one player against him and that other player had already stood pat, he neglected to take into account the others who were playing, and the further fact that A had not yet been heard from and might not have a pat hand. In other words, he allowed his perception that A was his principal opponent to blind him to all the other chances he had. Even against a single player or a number of pat hands, the standing pat on Four of a Kind can hardly be considered good play, though it might be justified as tending to remove the chance of Four of a Kind being suspected. Even that would only be called good in case there was a moral certainty of a full hand at the very last being out, and it is seldom possible to judge whether a pat hand may not be a Flush or a Straight.

One of the great beauties of Draw Poker is the faculty which it develops of rapid and accurate calculation of chances. Ordinarily the calculation has to be made on the basis of a hand that may not improbably be beaten, but when on occasions a hand is held which is almost certainly a winner, the good player will exert himself to the utmost to judge how to coax along not merely one antagonist, but as many as possible. The variations are infinite, but the principles are always the same. What is primarily required is the ability to judge whether it is better to force other players out or to retain as many of them as possible in the betting.

The Bluff.

THE underlying principle of the bluff in the game of poker is simple, but the practical execution of the successful bluff is something that calls for high skill. Like many other things simple in principle and theory, it involves details that are both intricate and difficult. All that is necessary to do is to convince your adversary that your hand is better than his, when you are yourself convinced that it is nothing of the kind. The proposition is as brief and sounds as easy as one could wish, but the one who undertakes a bluff without understanding is likely to grieve exceedingly thereafter. It is true that Draw Poker is full of surprises, and the most bare-faced bluff may sometimes be successful, but this is by no means to be counted on, and when it occurs it is to be accepted as evidence of a lack of skill in the other players rather than as an achievement of the bluffer.

On the other hand, a bluff, provided it be done artistically, with due advantage taken of all favoring circumstances and with just the right shade of insistency to secure the best results, is unquestionably the greatest achievement known in the game of poker. Since it is often essayed, even by good players, without due regard to the chances, it is worth while to analyze the various circumstances of the game that tend to defeat the bluffer, so that any player who desires to attempt the feat may know just what he has to contend against and what is most likely to bring him to confusion.

Almost the first thing to be considered is the player's

position at the board with reference to the age. Unquestionably the age man, or the player on his right, has the best opportunity for bluffing, and the man on his left has the poorest, so far as the position goes. Beginning before the draw the age man, if he be observant and if he have apt intuitions, can often form a judgment by the time he is called on to make his ante good as to whether there is a very good hand out against him. If there be, he will not, if ordinarily prudent, attempt a bluff before the draw. If, however, he shall decide that there is probably nothing particularly strong in opposition to his own hand, he can often drive out two or three of his opponents by raising before calling for cards. Obviously, the fewer antagonists he has the fewer are the chances of his bluff being called. It is true that the pot will be the smaller for each player who fails to come up, but it must be remembered that the larger the pot is the smaller is the chance of its being won on a bluff. A small pot can frequently be won by bold betting without the cards to back it, whereas if there be a considerable amount at stake the chances are that some player with only a moderately strong hand will call, preferring to lose a little more money rather than see so much go without a struggle for it.

If, therefore, the bluffer shall reduce the number of players against him by having set up the presumption that his hand is really strong, his next step must be to strengthen that presumption as much as possible by the draw. It may be that some one of his antagonists has met his bluff with a counter-raise. In this case he has to consider whether this second raise is likely to be also of the nature of a bluff, or whether there is really a strong hand against him. If there be two raises after his own he will be wise to abandon his bluff as quickly as possible and either throw down his cards or draw to the strength of his hand, trusting to his chances in the draw. If, however, he shall have only a single raise

to consider, it would be the part of wisdom in case he decides to go on with the bluff to raise again before the draw, since he will by doing this drive out all but the one player against him, and will deepen the impression as to his real strength in that one's mind.

If the second player again makes good, the presumption is that there is a good hand out against the bluffer, whom we may for convenience call A. A then has to decide as to his draw. If he be the age man, he is at a disadvantage in not being able to guide himself by B's draw, but if he be the dealer himself, he can form some judgment by B's draw of what there is against him. A has then to decide between standing pat or taking one or two cards. If he shall take three, B will know that he has nothing better than a pair of aces at the best, and he will weaken his bluff beyond remedy. Two cards give the impression of threes, which may be good play if B has drawn three, but standing pat or drawing one is esteemed better poker, because standing pat leaves only one impression — that of a complete hand — and drawing one leaves B a wide range for guessing.

Hesitation, or any evidence of doubt or fear, is extremely liable to ruin a bluff, and yet it may prove to be the most effective help to the bluffer if his antagonist have only a moderately strong hand. In that case, A, by pretending to consider the chances doubtfully, may give B the impression that he really has a good hand, but fears that B has another, in which case B will not be likely to continue betting unless he is also bluffing. If both bluff, of course the only question remaining is which has the more nerve. Neither one is likely to call, for the bluffer cannot call unless he is thoroughly satisfied that his antagonist is bluffing also. Even then, the show-down that follows is a betrayal of the original effort, and, therefore, extremely

likely to impair the efficiency of any subsequent bluff by the same player.

It may be said properly that any play in poker that goes beyond the mathematical chances of the cards actually in hand is of the nature of a bluff, and this is undoubtedly true. This is the reason why the best players usually confine their play to what they consider the legitimate demands of the cards they hold, bluffing only occasionally, and never unless the conditions are favorable. It may often happen, however, that a player will bet more on his hand than he is really justified in doing because of underestimating the hands against him. Probably this is the commonest fault in play generally. This, of course, is not bluffing, though it is practically equivalent to it.

The reason why the best players rarely attempt to bluff unless the conditions are all favorable is to be understood by a brief consideration of the best results to be obtained by the bluff in ordinary play. In the first place, as has been noted, the bluff, pure and simple, is not likely to be successful when there is a large amount in the pot, especially if it be in a limit game. Almost of necessity, the amount put forth as a bluff must be disproportionate to that in the pot, for if it be not too large, some other player is likely to call, rather than see the money go without a struggle. The bluffer, therefore, excepting on rare occasions, must make up his mind to venture largely for comparatively small winnings. It is true that the winning of many small pots is likely to pay better in the long run than the winning of a few large ones, but the player who makes a habit of bluffing is sure to be detected and will be therefore at a disadvantage that will increase with every instance of his detection.

But, if the carrying out of a successful bluff and the winning of a pot without the possession of the cards to

warrant the betting be the cleverest achievement of the game of poker, it must be said that the detection and defeat of a clever bluff is the next highest achievement. Not infrequently it involves as much nerve, if not more, to call a big raise with only a single pair in the hand, as it does to make the raise with nothing better than ten high to go on. The truth is that every good player is constantly watching for symptoms of bluff in every other player's game, and the very fact that the bluff must always be made in the face of this suspicion increases the difficulty of the performance and enhances the credit of success.

Stress has been laid on the importance of the player's position relative to the age, and this may not be readily appreciated by those who are not thoroughly familiar with the game. For the sake of illustration, suppose six men to be playing, and the deal to be with A. The age, of course, is B's. If, then, C should think of bluffing, it would be manifestly absurd for him to begin before the other players had come in. It is his first play, and if he makes a raise he has nothing to play for excepting B's ante, which he must himself double before he can raise. Suppose the ante to be five cents, he must put up ten to play. If then he raises there is a chance that the others will all "lay down," and all he will win is five cents. But, if there happens to be a good hand out, as is likely, he will have a strong opponent and a poor hand to draw to. Evidently this game is not worth the candle.

It must be remembered, however, that the advantage of position is always liable to change. Supposing D to have a good hand and to raise the limit. This may have the effect of driving out F, and A, E and B may come in, and C will then have the last say. He has already come in on a small pair, and if he decides to bluff he has now an excellent chance, even though there are presumably three fairly

good hands out against him. If he raises back the other three players are put on the defensive and must protect what they have put up before they can play. Their natural presumption is that his hand is strong and that he did not raise at first for fear of driving them out. Against this there is, of course, the suspicion that always obtains against every play, that he is bluffing; but he has started his bluff favorably and has only to follow it up as well in order to win.

His next step is not so easy. B draws first, so he knows something about one hand. There are two others, however, to hear from after he draws himself, and he must make all three think his hand is strong. Under the circumstances he will do well to draw two cards or stand pat. If he draws one he will be thought to be drawing for a Straight, a Flush or a Full, and will have to begin all over again the effort to make the others think he is really strong. In other words, he is relinquishing the advantage of the impression he has already produced, and this is an error.

Having decided on his own draw he must watch that of D and E. Remembering that D raised first, he will be likely to credit him with a strong hand, since he was in a poor position to bluff. If D's draw, therefore, be two cards he will feel sure that he had threes to begin. If D takes one card he will still credit him with threes or two good pairs at the least, though some players habitually raise on a Four Flush on a theory that is not entirely defensible.

There is also a presumption that E is not bluffing, for if he had been, he would probably have raised D to keep the others out. And this reasoning applies equally to B. By watching their draw, C can form an approximate judgment of the hands he has to contest.

C has now another disadvantage. It is his first bet, and if he decides to persist in his bluff, as he must do unless he is willing to stultify his previous play, he should bet the

limit, or if it be a table-stake game, make a large bet. If he put up a small amount he is likely to be called, but a large bet will drive out some of the three unless they are all strong. Should he be raised in turn he must either throw down or raise again, since he has no cards to call on.

The essence of the bluff, therefore, is seen to be the accuracy with which a player can gauge the strength of his opponents and the quickness with which he can avail himself of his opportunities. In this it differs no whit from the rest of the game of poker, but it is, as was said, the highest development of skill in the game.

Punctilio of the Game.

IMPATIENCE is often felt, and sometimes expressed, by poker players with others in the game who insist upon laughing, singing, telling stories or carrying on a running conversation while the game is in progress. The rules of the game, however, do not bar anything of this sort, and even the etiquette of the card table can hardly be said to forbid it. A player who chooses to do such things may say that he resorts to them as means of confusing or distracting his opponents' attention and so increasing the strength of his own hand, or rather diverting attention from it, and it is difficult to see what objection could be maintained against the use of such means or of any other, short of physical interference with other players.

Just where impropriety begins, when conversation of any sort is countenanced, is not easily determined, and as a matter of fact the law of etiquette is an elastic one. Poker, as was just explained, differs widely in this respect from whist, for example. In the latter game it is easy to interdict all irrelevant talk, but in poker a player may claim it as a part of his play. The only practical rule seems to be to withdraw from a game in which any of the players persist in talking or singing or the like to such an extent as to interfere with orderly play.

One excellent plan has been devised for maintaining order among players who refuse to curb the exuberance of their spirits at the poker table or who believe that the kind of by-play indicated is a valuable addition to their game. Of course the only objection to such practices, as long as

they do not outrage propriety, is that they confuse other players and, by inducing small errors of play, make the game wearisome and uninteresting. The plan mentioned is, therefore, to impose a fine on each player who violates a rule of the game. This fine must be large enough to insure the attention of all the players and is usually fixed at a red chip, which is to be put into the next pot played for after the offence.

It is indeed a question whether it would not be an excellent expedient to agree upon some rule of this sort in every game in which there are careless or inattentive players, and even with inexperienced players the salutary effect of paying a small penalty for the infraction of a rule will be found to expedite the learning of those rules more than anything else. The fine should be small, of course. Probably a white chip for each offence would be ample, but once agreed upon it should be enforced mercilessly. As in the old-fashioned game of "muggins," no excuse should be allowed and no plea for mercy should be listened to. The player who has to pay for playing out of turn is sure to wait for his turn to come after he has paid the fine a few times.

It should be clearly understood, however, that this levying of a fine is no part of the game of poker. It can only be enforced by the common consent of the party playing, as there is no authority which can be invoked to compel the payment.

While it is true, as explained, that the etiquette of the poker table is exceedingly elastic, and hardly anything short of rowdyism can be said to be actually barred from the game, so that common politeness may be said to be the only rule on the subject, it is also true that what may be called the minor rules of the game are to be enforced as strictly as any others, if the game is to be played properly. A certain laxity in regard to some of these rules is often found

even among good players, but the courtesy which allows the infraction of even the least important rule without penalty is a mistaken one, and any carelessness in this respect will certainly be followed by a deterioration in the quality of the play and a consequent loss of interest in the game. Even good players who seldom or never commit errors themselves are likely to overlook seemingly trivial errors in others, deeming it hardly worth while to insist upon an enforcement of the rules in small matters, but to do this is a mistake. It must be remembered as a fact of prime importance that it is just as easy to play poker correctly if one is paying attention to the game, as it is to play it in a slip-shod manner, and while it is just as easy for the individual in question, his attention to the rules makes the play much easier for others.

For example, one error, perhaps the commonest of all that are made at the poker table, is playing out of turn. It is manifestly just as easy for one who intends throwing down his cards to wait until it comes his turn to play before doing so as it is for him to glance at his hand and finding it worthless to throw it on the discard pile without looking to see what the other players are going to do. The beginner always has difficulty in seeing the importance of the rule which forbids him to do anything like this, yet if he throws down his hand before his turn comes, he is, very likely, doing a distinct injury to some other player who is still struggling for the pot, by giving his antagonist an advantage to which he is by no means entitled.

To illustrate this, suppose A, B and C draw cards, the others having dropped out, though there is a good jack-pot to play for. A has opened the pot on a pair of Jacks and fails to improve his hand in the draw. B, it may be, has come in, having also a pair of Jacks. He also fails to

improve, but gets an Ace in the draw, A's highest card next to his pair being a King. C has come in on a pair of nines and has also failed to better his hand. It will be seen that in case of a show-down B will win the pot away from the opener.

A, desirous of giving the impression that he has a large pair, bets the limit before he looks at his draw. Possibly he has held up a kicker to give the impression of threes, and is really bluffing on his Jacks. C realizes that he has no possible chance to win except by bluffing on his nines, and feels that he has not the nerve to bluff against a presumable Three of a Kind. Without regard to the rule, therefore, he throws down his cards before B has declared whether he will or will not play. Had C waited his turn, as he was obliged by the rules to do, B would undoubtedly have refused to bet, and the opener would have taken the pot. With C out of the game, however, B realizes that he has just one chance for the pot, and looking at it sees that there is considerable money in it. He therefore decides to take the risk, in view of the odds he gets in the betting, and calls A, winning the pot by virtue of his Ace.

It is evident in such a case that B wins money that would otherwise have gone to A solely because of C's misplay. A has therefore a perfect right to complain. C, of course, has suffered no loss. He would not have won in any case, so he is personally unconcerned, though in equity he should be compelled to pay a heavy penalty. It is no defence for him to plead that as B's hand was really the better one of the two, it is right enough for him to take the money, for this is not a correct proposition in poker. A pot does not always belong to the player who holds the best cards. If it did, all skill and the greatest part of the interest in the game would be eliminated, and poker would become as purely a game of chance as roulette. In

the case cited, although A showed no great skill, he certainly displayed all the necessary nerve and really took longer chances than B did, since he bet against two opponents, while B only called one. That, however, is not the real point of importance. What is important is that C by a violation of the rule gave B an opportunity to which he was not entitled. It was true that B showed courage in calling, but it was merely the courage of taking the small end of a bet because he thought the odds justified it.

Another misplay which is often condoned and allowed as a matter of mistaken courtesy is the asking of one player by another how many cards he took in the draw and the answer which is given and allowed to pass unchallenged. It is true that the rule on this subject goes no further than to prescribe that the dealer shall require each player to call audibly for the number of cards he desires and shall himself announce the number which he takes for himself, and that after the betting has begun he shall not answer any questions as to how many cards he has dealt to any player. As a matter of fact, however, the question is often asked and often answered, though never by good players, yet it cannot be answered truthfully without the possibility of giving some player an advantage to which he is not entitled over some other player. For no player is entitled to have his errors rectified or his memory refreshed when he is about to suffer loss by reason of his error or his lapse of memory. The moment he accepts a favor of this kind he becomes the recipient of charity and is put at an advantage over his opponents in the game who are playing on their own ability without asking favors.

It would be easy to specify a number of other seemingly trivial matters in which even good players are likely to be good-naturedly indulgent of carelessness in others, but it is not necessary to do it. The truth of the matter

is that no detail of the game of poker, however trivial it may appear to be, can be neglected without deterioration. The most inexorable enforcement of all rules is the quickest way to educate a new player and the only way to preserve the interest of the game among good players.

But over and above this mere obedience to the rules stands the punctilio which dictates the observance of the spirit of those rules. It will be found by studying them that the one object of all of them is to guard the rights of each player jealously against any advantage to any other player beyond what he can get by superior skill or stronger cards. A punctilious observance of this spirit not only betokens true courtesy, but aids in maintaining Draw Poker as the best of all card games.

How to Play Jack-pots.

THE difference between Draw Poker as it is played straight, and Draw Poker as it is played for jack-pots, is more real than apparent. For, as the beginner views the latter variation — it is really a variation of the original game — he is likely to perceive no difference, excepting that a pool is made up before the deal, to which all the players contribute equally, and it cannot be played for until some one in the game gets a hand of a certain value before the draw. These things, of themselves, he is likely to consider, make no essential change in the character of the game, and to that extent he is undoubtedly right. It is not until he has studied the game carefully that he will see what radical differences in play are likely to be encountered in the struggle for a jack-pot, as compared with the ordinary game.

Just how the jack-pot originated it is hard to say, but it is, legitimately enough, an outgrowth of the original game, and results from the spirit of fairness which rules Draw Poker. Formed in the regular way by default of play on any given deal it proved so attractive to most players that it came to be called for arbitrarily, and in some circles it is played exclusively, while in others a "buck" is thrown into the pot, and being taken by the winner together with the chips becomes the signal for the formation of the next jack-pot, which is made when the winner of the last one next deals.

The first attraction is, naturally, that there is a larger stake to be played for. As this would be likely to inspire

bolder play, and lead to unconscionable bluffing, the limit of a pair of Jacks, or something better, in the hand is fixed, below which the pot may not be played for. It was formerly the rule that after the first deal, the pot having been sweetened, a pair of Queens was required to open; after the second deal, a pair of Kings, and after the third a pair of Aces. The reason for this is apparent. The more money there is at stake, the greater the temptation to bluff. This rule, however, is now practically abandoned, and Jacks are held sufficient for openers at any time. Like all other changes in the game that have obtained permanent favor, this is a distinct improvement, for it does away with needless confusion.

The age is no less an advantage in the jack-pot game than in the regular, and as no player can be sure of having it until his left-hand neighbor has opened, some little manœuvring is permissible and is held to be good play. For example, with seven in the game, and A dealing, B may have a good hand, say, two pairs, and may yet pass. His theory would be that in the six other hands yet to be heard from there will probably be openers, and he will have a chance not only to see how many competitors he has but also to raise the opener, thus declaring his own strength and swelling the pot. Supposing then that C opens, B's finesse is well justified. Each of the other players must decide whether to play or not before he is called on to announce what he will do. Here is a manifest advantage.

It is to be noted, however, that there is always a risk in passing with openers. It may very likely happen that no one else has openers, and B will therefore lose the opportunity he had, in playing for an advantage which he may or may not get. Again, it may happen that A will be the opener, in which case if B shall raise he will probably keep the other five players out, whereas, having a

strong hand, he will desire a large pot. Moreover, his two pairs are likely to be beaten by any player who draws to a single pair. It is therefore counted risky play to pass with openers, and good players seldom do it unless there are at least four or five other hands to hear from. Even then, if the hand is exceptionally strong, it is accounted better play to open than to hold back for the possible chance of raising. To pass with Three of a Kind, for example, would be throwing away a substance in the hope of grasping a shadow.

In opening, judgment should be shown in regard to the amount declared. To open for a small amount in comparison to the amount already in the pot is an invitation to each other player to come in, regardless of what he has in his hand before the draw. To open for a large amount, on the other hand, will deter the others from coming in unless they have strong hands. It is therefore accounted wise to open for the limit, provided it be a limit game, unless the opener has so strong a hand that he does not fear competition. If the game be unlimited or for table stakes the conditions are somewhat different, and more will be said of this presently. Of course the amount of competition to be desired depends on the hand held by the opener. If six out of seven players have passed and the seventh has Three of a Kind it would be good play for him to open for a small sum, provided his threes are Jacks or better. The chances are that no one has more than a pair of tens, and even if three tens should be obtained in the draw the opener will have no fear of them. It is therefore his policy to get as much in the pot as possible, even at the risk of being beaten by some exceptionally lucky draw.

In opening a jack-pot, therefore, and in raising the opener as well, but especially in the latter case, the question of position must be carefully considered. It is true

that position is an important element in all questions of poker play, but it is most especially to be remembered in jack-pots, seeing that the advantage of position is fixed, not by the deal, but by the opening, and seeing also that the fact of the opening amounts to a positive declaration that the opener has a hand of a certain minimum value.

There are players who habitually raise on a Four Flush or a Four Straight, if it be a high one. The theory of the play is simple, but the play itself is too rash to commend it to most players, as it generally calls for a longer percentage in the betting than there is in the draw. If the player, however, is careful to keep in mind the percentage of the bet he may easily determine at any time whether the venture is justifiable. Supposing a Four Flush or a Four Straight to be in hand. The chance of filling is about the same in either case, being nine in forty-seven for the Flush and eight in forty-seven for the Straight, or between 5 to 1 and 6 to 1 against. If, then, the hand when filled were a sure winner it would be good play to bet on the chances of filling it when better than 6 to 1 could be obtained in the betting. In other words, if there were $7, or even $6 in the pot, it would be mathematical play to raise it a dollar. If no one sees the raise of course it wins. If other players come in, of course the odds become better.

But it must be remembered that neither a Straight nor a Flush is a sure hand, though it is strong enough to justify betting, and there may be indications even before the draw that it is a doubtful hand to back. Unless the player, therefore, can get odds of at least 10 to 1 in the betting, it is not advisable to bet on a Four Flush or a Four Straight. In the betting, however, it must always be remembered that what has already been put up is to be counted as odds against. Thus, if there be $10 in the pot, of which one player has contributed two, and he desires to put up an-

other dollar, he must not consider that he is getting 7 to 3. The odds on the new bet are 10 to 1, for what he has put in is no longer his own. He has parted with it positively and irrevocably. It is no more his property than his next neighbor's chips are, excepting that he has a chance to win it.

This method of calculation is never to be overlooked in poker, though inexperienced players are often confused in regard to it, and this confusion is likely to work in two directions. In one way it tempts a player to come in when his chances do not justify it, by leading him to think that his interest in the pot is proportioned to the amount he has contributed already, and in the other way it leads him to underestimate the odds he is getting in the new bet. The correct calculation is to consider each bet without reference to what has been done before, and each chip that is put up is a bet, no matter whether it be an ante, a raise, or simply seeing another player's raise. Obviously, nothing but unusual luck can save a player who takes shorter odds in the betting than the odds against him in the draw.

Reference has been made to the difference between a table-stakes game and one with a limit. This difference is greatly accentuated in playing for a jack-pot, when the temptation to bluff is the stronger by reason of the amount at stake. The comments that have been made already as to the advantages of position hold good, but the opportunity to bluff in a table-stakes game is of course much greater than with a limit, and this of itself changes the character of the necessary calculation.

Supposing, as before, that there are seven in the game and A is dealing. B, having a pair of Jacks, may well hesitate about opening. Some players refuse to open on Jacks when sitting in this position, and some, indeed, will not open at all on Jacks. But if B decides to open, it would

manifestly be poor play to put up a small amount. His hand is small and very likely to be outclassed even before the draw. His play then, supposing he decides to open, would be to put up such a sum as he thinks will be likely to keep the others out. Every player who is kept out means one chance less of beating his Jacks. It is well, then, to put up at least as much as is already in the pot, and more than that is better, though if he puts up too much he raises the suspicion that his hand is weak. There is a risk both ways and he must balance his chances.

It may be said that putting up a larger stake than is already in the pot is risking too much to win too little, but it must always be remembered that many small winnings usually count for more in the long run than a few large ones. The player who takes too long chances because they are cheap, or who undervalues the winning of a pot because there is little in it, will lose in the long run.

In jack-pots, it will be seen, there are differences of play from that in the straight game, and these differences will be more and more appreciated the more the play is studied; but it is also true that the rules governing the play and the principles of the game do not vary. The differences come solely from the changed odds in the betting and the varying advantages of position.

One question of importance should be considered before passing on from the consideration of the jack-pot. There is still in different clubs a decided difference in the rules regarding the splitting of openers in a jack-pot, or, in other words, the privilege demanded for the player who opens the pot, of discarding one of the pair on which he opened and taking his chances on filling another hand, as a Flush or a Straight, as, for example, when a player opens on a pair of Jacks, having the King, Queen, Jack and ten of one suit and the Jack of another. There is a distinct tempta-

tion here to discard a Jack and draw one card, with the chance of making a Royal Flush, a King high Straight Flush, a King high Flush, or a King high, or Ace high Straight.

In some clubs this is allowed and in some others it is not. In some clubs, when it is allowed, the discard pile is kept in proper order, and there can be no question after the pot has been won as to what the opener really discarded, each man being able to tell just how many cards he discarded, and the opener's one card being, as it must be if the pile is kept in proper order, in its rightful place. This is actually the only way in which poker can be played so as to make the splitting of openers justifiable, if indeed it be justifiable at all.

Unfortunately, the keeping of the discard pile in proper order is a detail of the game that is seldom insisted on, even by good players. Usually the cards thrown down are thrown at random, and are gathered up by some player who has passed out. Very commonly they are mixed up with the deck or that part of it which is not in the hands of those who are still betting, and the sequence of the discard is lost while the betting still goes on.

This should not be done, strictly speaking; but as a matter of fact it is usually done, so that some other way has to be found to enable the player who has split openers to show his original pair when he is called upon to justify his opening. Obviously there are only two ways of getting over the difficulty. One is to rely on his bare word, which poker players generally are reluctant to do, and the other is to require him to lay his discard on one side and guard it until after the pot has been won. In some clubs there is a rule that the opener may split the pair on which he has opened, but he must announce the fact that he has done so when he makes his draw.

None of these regulations can be said to be entirely satisfactory, excepting that which calls for a carefully kept discard pile, and since players generally refuse to take the pains to keep the discard properly, it seems probable that the next important change that will be made in Draw Poker will be the prohibition of the privilege of splitting the openers. This is in the direct line of all the improvements that have been made in the game hitherto, and is therefore to be expected. As was said, the splitting is prohibited now in some clubs, and it is asserted that the number of players who object to it is increasing.

One difficulty in the way of settling the question definitely is that players by no means agree as to whether the opener of a pot ought, according to the spirit of the game, to be allowed to split the pair on which he opens. Those who maintain that he ought not to have that privilege say that the fundamental rule of the jack-pot is, that it cannot be played for unless a pair of Jacks or better is held by one or more players, and that if openers are split there is no guarantee of any hand at all being shown down on the call.

On the other hand, those who uphold the practice say that the opener, having a pair of Jacks or better, is clearly entitled to open, and that if he chooses to relinquish the advantage of that pair and draw for a higher hand than he would be likely to get by taking three cards, he is doing it at his own risk and to his own disadvantage, and for that reason no other player has the right to object.

There is good ground for argument on both sides of the question, and it may very possibly remain a moot point for a long time, though the privilege of splitting is likely eventually to be abolished. In the meantime, however, since it is very generally allowed, it is well to inquire under what circumstances it is good play to split openers.

A pair of Jacks, while it is better than the average hand at poker, which is figured at eights or nines, is by no means a strong hand against more than one antagonist. It is therefore a common practice among good players to pass on Jacks when they have the first or second say in a party of five or more players. Some players indeed refuse to open on Jacks at all times, waiting for a better hand.

It often happens that a player after opening on a single pair has reason to suppose that other players have him beaten before the draw. He may be raised and even raised more than once before cards are called for, and may have good grounds for the supposition that the raising is not a bluff. Or, if two or three other players draw before he does, he may see that he is likely to have a strong hand against him.

To illustrate: A deals, B and C pass, D opens on Jacks, E stays, F raises, A raises again, and B and C both stay. In this case, F has probably aces at least, A has probably two pairs or better, while the chances are that B and C have each either a Four Straight or a Four Flush. In such a case D, if he has nothing but a pair of Jacks to draw to, will do well to lay down his cards. His chance of winning is too small to justify him in seeing the double raise. It may be, however, that one of his Jacks is a part of a Four Flush, even, as was supposed above, part of a Four Straight Flush. In such a case, while he is less likely to fill the Flush or the Straight Flush than he is to get a third Jack or a second pair, the hand he might fill by discarding a Jack and taking one card would be strong enough to justify betting on it, and it might be good play to see both raises on the smaller chance.

On the other hand, if B and C have both passed and D has opened on Jacks, and E and F have both laid down, A has come in and B and C have laid down, D would not

be playing well to split his openers. He has only one antagonist, and while A may have a better hand than he, the chances of bettering Jacks is greater than the chance of filling a Four Straight or a Four Flush.

It may be said, therefore, as a general rule, that it is not good play for a player to split a pair of Jacks or better unless the play before his turn has come to draw has been such as to convince the holder of the pair that even a third to his pair would not be good for the pot.

Caution and Courage.

BEGINNERS in the game of Draw Poker who have the advantage of a tutor always receive the advice to play carefully. It is unquestionably sound counsel, for the game cannot be properly played without the exercise of great care. Caution, as well as courage, is a requisite in the play, and a man who bets too boldly on a small Straight or Flush when circumstances indicate the presence of a stronger hand fails as completely in mastery of the principles of the game as he who lays down three Aces without an effort to win the pot. His failure, moreover, is likely to be more disastrous. Sound as the advice is, however, it is productive of great bewilderment in the beginner's mind, and not until he has learned to watch the indications that are given by the play of his opponents can he easily distinguish between caution and rashness, because the same bet on the same hand will be conservative at one time and foolhardy at another.

One or two fundamental rules should always be borne in mind, and the first of these is that there are only four really strong hands in the deck. They are the four Royal Flushes, which a player may possibly never see in actual play, though he be a lifelong devotee of the game. All other hands are only relatively strong, though a single pair is as potent, when nothing but a smaller pair is out against it, as the Royal Flush itself. This is, of course, an elementary truth, but it is one that even experienced players are apt to forget when dazzled by the sight of unexpected fours, for example.

The second rule is also elementary, yet it is equally likely to be forgotten by the average player. It is that the player is never justified in making a bet on the strength of his own hand alone. He must always remember to take into consideration the chances of all the other hands. One who draws to Aces up and catches another Ace is naturally elated by the transformation of his hand from one of low grade to one at the top of the third grade, but he is not justified in betting on it without thought of the possibility of being beaten. It is true enough that an Ace Full is not frequently beaten, but on the other hand it is beaten often enough to mark the presence of actual danger, even though the danger be not serious.

Possibly as good a study of caution and boldness as may be made is to be found in a certain play which some persons follow invariably under certain circumstances. It cannot be called cautious, but though bold enough it is certainly not rash. The circumstances are that the player in question either has the age or sits on the right of the age man, thus being, of course, the dealer. Some players, if they hold anything better than a pair of tens in either of these two seats, will raise when it comes their turn to come in, provided no one has raised before them. The theory, of course, is that a pair of court cards is better than the average hand, and consequently gives a favorable chance of winning, so that it is good play to swell the pot, that the winnings may be the greater. It might be said that this play stands on the dividing line between cautious and incautious play. It is sufficiently bold, since it shows that the player is willing to back his chances when he has them, even though there are strong chances against him as well as in his favor in the draw, but it is not too bold, since his own chances are as good, presumably, as any one's else. The really cautious player, however, would scarcely raise

before the draw, even though he had last say or next to the last, on anything less than two good pairs. If, however, he should refrain from raising on Aces up when he had the advantage of position, his play would be called timid unless he preferred to conceal his strength, as some players do, until the betting after the draw.

It is to be noted, however, that although a definite statement can be made concerning this or that play before the draw, as to whether it is bold or cautious, no such statement can be made of any given play after the draw, without taking all the circumstances into consideration. An example of this may be cited in a play that would be condemned off-hand by nine players out of ten as extremely timid, but which is to be supported with no weak argument.

There were six in the game. A drew three cards and caught a third fourspot to his pair. B and E each drew one card, C and D each drew three, and F drew two. F had the age. After the draw A bet a white chip. B threw down his cards. C raised it the limit. D, E and F saw the raise without raising again, and A had the last say. Instead of seeing the bet as he might have been expected to do, having Three of a Kind, he threw down his cards. "Ordinarily," he said, "I would have called as a matter of course, even if I had not raised; but the cards had been running extremely high for half an hour, and I figured the probability to be that there were threes out against me, in which case there were ten chances of being beaten to two of my winning. My three fourspots were too small."

The show-down proved that he was right. C had three Jacks, while D, E and F each had two pairs. This, of course, did not of itself prove the soundness of his play, for perfectly sound play is often unsuccessful in poker, while ill-judged ventures are often successful, so that no play can be called good because it captures a pot, neither

can any play be called bad because it has failed to win. It did show, however, that C had been correct in his judgment, even though he had founded it on so delusive a thing as a run of the cards.

This matter of a run of the cards, it must be clearly understood, is probably the most puzzling thing connected with the game of Draw Poker. As a matter of theory, of course, the chances in any one deal, the same number of hands being dealt, are exactly the same as they are in any other one deal. Practically, nothing is more certain than that the cards often run in series of hands, either good or bad, and that these series frequently last for a dozen deals or even a hundred or more. While one of these runs, so-called, is in progress, any calculation on the averages that are made from thousands and tens of thousands of hands would be wholly at variance with the probabilities. It is nothing uncommon for the same party to play for half an hour, for example, without seeing a hand larger than a Straight, and in the next half hour to see a dozen or more Fulls and Flushes beaten. Such unevenness does not in the least affect the average which must serve as a basis for any comprehensive understanding of the game; but it does, on the other hand, materially affect the play of any man who has a practical knowledge of it.

To judge therefore of the degree of caution to be exercised in order to escape the charge of rashness it is necessary not only to estimate the relative excellence of one's own hand, as considered according to the law of averages, but also to consider the chances of each opposing player, as indicated first by the law of averages and then according to the indications he may have given by the number of cards he has called for in the draw, and by the amount he has bet and the manner in which he has made his bets. Moreover, there is a judgment to be formed according to one's

knowledge of each player's personal characteristics, so that a two-card draw by one player may be a tolerably sure indication of Three of a Kind in his hand already, or it may mean that he is drawing to a Bobtail Flush or a single pair with a kicker. His raise to the extent of the limit may mean a bluff or it may be a dangerous sign.

And more than all these things, the experienced player learns to judge of the value of his hand by the way the cards are running. This comes to be almost intuition, so that Three of a Kind, as in the example cited, will seem a small hand at one time, whereas at another time they would call for a substantial raise, and this entirely aside from the indications given by the other players.

Timidity, therefore, is not necessarily shown by the laying down of a comparatively strong hand, especially if many strong hands have been shown in the deals immediately preceding. On the contrary, as has been said often, it is one sure sign of good play when a man lays down a strong hand because of his belief that there is a stronger one against him. His judgment may not be correct, and in that case he will be, of course, a loser, but the fact that he relies on his judgment sufficiently to face the loss of what he has already put into the pot rather than to risk additional money against his judgment is a clear indication that he possesses at least one qualification of a good player.

The average player is perhaps more likely to display caution in calling a bet when he feels that he has a fair chance, than he is by laying down his cards. The question of when to call is no less important than that of when to raise and when to lay down. As a matter of fact it is probable that more mistakes are made in calling than in any other way. The player must never forget that he is playing solely on his judgment of the relative strength of two or

more hands, including his own. If he bets against his judgment he is abandoning the only guide he has in the game, and if he fails to back that judgment he is lacking in courage. The mistake is often made of calling after one has fully decided that his own hand is the weaker of two, and the impelling motive is a reluctance to see another win the money he has himself put in the pot. This is poor play because, as has been explained before, the money in the pot has gone out of the player's possession already. He has no ownership so far as his own contribution goes, any more than he has in the contributions of his antagonists. If, then, he shall call because he has already bet more than his present judgment approves, he is accentuating his former error by committing another. And if he shall call when his judgment is positive that his own hand is the best, he is erring on the side of undue caution, which is well-nigh as serious a fault in poker as recklessness.

The Counter-Bluff.

IT is a comparatively simple thing to learn the game of poker well enough to play it, if such a thing were possible, in the absence of opponents. That is, the theoretical play, based upon the rules of the game, the doctrine of chances and the cards in one's own hand, is easily enough mastered, so that the player will have no difficulty in formulating his own course of action at any time when he happens to have the first say after the draw. But, although this knowledge is essential to an understanding of the game, it is of little practical value unless it is supplemented with an understanding of the play of others. At the very outset of the play there begins a struggle between opposing wits, in which each player is compelled to watch the tactics of his opponents with as close attention as a swordsman has to pay to the motions of his antagonist in a duel.

Because of this antagonism, in which the sole end to be attained is an opinion as to the probable strength of the other man's cards, it is of prime importance to observe as closely as possible the habit of every man's play, and it is also important, perhaps equally so, to conceal one's own habit. Because of this it should be remembered that it is bad play to show any hand unless the rules of the game require it to be shown, and it is also bad play not to insist on seeing each hand which the rules require to be displayed.

This is a point on which even experienced players are apt to be lax. Nothing is more common than to see hands shown down which have not been called, and to hear this

play and that criticised and discussed when the player was not obliged to reveal the line of reasoning which he adopted. Whenever that is done the player who has shown his cards contributes to the benefit of his opponents by telling them in effect just what his line of play has been on one occasion, and so enabling them to judge of what it is likely to be at some other time. The rule is simple and explicit. The hand of each man who is in at the time of the call must be laid on the table face up, so that each person in the game may see what each man has seen fit to play on. But no hand which a player refuses to back to the extent of a call need be shown, nor is it required to show the winner's hand unless he be called. This, of course, does not apply to the rule compelling the opener of a jack-pot to show openers.

It is therefore loose play to show even a phenomenally good hand, such as might surprise the party, when it has won a pot without a call. Still worse is it to show a worthless hand after the player has successfully bluffed on it. It only serves as a guide to one's opponents. On the other hand, it is very common to hear a player, after the call, when his opponent has declared his hand, say, "That's good," and throw his hand, face down, in the discard pile. This will never be allowed by good players, who have a right under the rules to know whether he has been bluffing or has been guilty of bad judgment in backing a hand too heavily for its actual strength. The man who does not insist on all his rights at the poker table is extremely likely to have them ignored.

The importance of seeing all called hands lies in the opportunity, given by the display, of judging of the habits of other men's play. When you know that a player is in the habit, for example, of holding an extra card when drawing, you may often judge of your chances in drawing against him better than you could otherwise. One trick of

play is common with many players, of standing pat on an incomplete hand, such as two pairs, or a very weak hand, such as a pair of Jacks after opening a jack-pot. The object, of course, is to give one's opponents the notion that the player has at least a Straight, and an opponent who believed that would, of course, throw down three Aces or anything less, without even a call. If he knew that the opener was a habitual bluffer he would call on a comparatively small hand.

An example of how this knowledge of a man's game helps his opponents is given in a certain play which has been described elsewhere. The gamesters who believe in it will invariably raise before the draw if they chance to have a pair of Jacks or better, and to sit in the age seat, or next to it on the right. This is a rule of play that has decided merit and will win many pots if properly backed by subsequent play, but there is a counter to it equally strong which will also win money in many cases for him who plays it.

Let it be supposed that there are six playing and that A has the deal. B has anted and C, D, E and F have come in. A, having two Jacks, raises the limit. If the others do not know his play, they may not improbably all drop out, thus giving him a small winning, it is true, but an easy one on a small hand. But if it be known that A is in the habit of raising thus on a comparatively small hand, the others will be likely to come in if they have any reasonable prospects in the draw. Suppose that each draws three cards except A, who, having the last draw, still looks on his Jacks as reasonably good, and draws two, seeking to give the impression that he has Three of a Kind. C may bet a single chip and D and E drop out. This gives F, if he shall have caught a third to his pair, an opportunity for some good play. If he be wise he will simply see the one

chip that C has put up and wait for A to raise, as he probably will do, to carry out his play logically. If B and C see the raise, F will then be justified in raising again, with the expectation of making more than he would have made by raising the first time he had the chance.

This really amounts to the use by F of his knowledge of A's habit of play as a means to win A's money. The example is a simple one, but it illustrates one way in which this knowledge is useful, and there are hundreds of such ways, for the game is one of unlimited variety.

The habit of bluffing is one that many otherwise good players form, and it is of all habits the hardest to conceal, since the habitual bluffer is almost certain to be caught often enough to raise a suspicion of any play he may make, even on a good hand. Obviously if a man could always remain undetected, the bluff would be the simplest and easiest way to win at poker, but since it is almost impossible to bluff frequently without being called, and thus exposed, the good player will attempt the feat seldom. Each successful bluff, however, constitutes a temptation to repeat the effort, and the player who succumbs to the temptation too frequently is almost certain to come out of the game a loser.

There are two ways of countering the bluff, and the choice between them is a matter calling for first-class judgment. This judgment, moreover, must be not only in regard to the probable strength of the cards in hand, but also in regard to the habit of the bluffer's play. The simple call is, of course, immediately effective and is usually employed as the counter when the player believes that another man is bluffing, but at the same time has no great confidence in his own hand. It requires courage to call, of course, when one has a small hand, but it is often good play when a bluff is suspected, unless the amount to be put up for

a call bears too large a proportion to the amount in the pot. When the limit is small, this is seldom the case, so that a call is tolerably sure to come, and the bluff is seldom successful. It is of little use to bluff in a small-limit game. The reason is that the man who wishes to call can usually get a good percentage on the necessary bet.

In using this first-mentioned counter to the bluff, therefore, only a simple calculation is necessary. The amount in the pot can be seen at a glance, so that the odds of the bet are apparent. If they are sufficiently large to balance the probabilities of the suspected bluffer's really having the winning hand, there is, of course, only one thing to do, and that is to call. It is therefore self-evident that any knowledge you may have of the bluffer's habit of play will be of advantage to you in deciding whether to play.

It will be seen that a bluff to be effectual should be made for a large sum, in comparison to what is already in the pot, and the bluffer will bet in conformity with this idea, generally speaking. The natural result is that if he bets too heavily it becomes at once apparent that he is probably bluffing, and he is tolerably certain to be called. The question of how much to put up to make the bluff effective without overdoing it calls for nice judgment.

The second counter of the two mentioned is to bluff the bluffer. This is one of the boldest things to be done in poker and is not to be attempted by any player who is not fully confident of his own nerve and at the same time confident that the other's nerve will fail. Take a deal in which all have passed out but A and B. There is $1 in the pot, and A, having only a small pair in his hand, decides to bluff. If he raises 50 cents he will expect B to call if he has, say, tens or better, which he is very likely to have. If A should raise it $2, on the other hand, B would immediately suspect a bluff and would be all the more likely to

call. A raise of $1 would be, however, large enough to deter B from calling unless he had a strong hand, because the $2 in the pot would only give him 2 to 1 against the $1 required for a call. And at the same time it would not be a larger bet than A would naturally make if he had a strong hand and wanted to get as much as possible on it.

The bet of $1, therefore, is probably what A would make, desiring to bluff on his small pair. B will suspect a bluff, since the good poker player always suspects his opponent of bluffing and allows the suspicion as much weight as the circumstances indicate. With his own hand of a pair of tens he does not feel himself justified in calling, and at the same time he has a feeling that he would probably win if he should call. This is a good place for the counter-bluff, and he raises A $2, hoping to frighten him out if he really was bluffing, and to intimidate him in any case.

This, as was said, is bold play, and brings out one of the most interesting situations of the game, in which neither player is betting on the actual strength of his own hand, but on his distrust of his antagonist, and on his confidence in his own superior nerve. The issue will depend entirely on the manner of the two men's play, and their confidence each in his own judgment. It is entirely different in character from the contest which is seen when each man has a strong hand and honestly believes it to be stronger than the other.

Play is always met with counter-play, as was explained, and the careful poker player will lose no opportunity of studying the ideas, habits, and even the superstitions of his antagonists. It is only thus that he can devise his own counter-play effectively or understand the nature of the other man's.

Playing Against Odds.

THERE is one phase of the game of poker which presents a temptation to the beginner, and against which, in all fairness, he ought to be warned, lest unthinkingly he be subjected to serious loss and inconvenience at a single sitting. If he play oftener, or for heavier stakes than he ought, the game is not to be blamed; but it does not seem altogether unfair to blame the game if the fascination of the moment carries him unthinkingly off his feet, so that he loses his mental and moral equilibrium for the time being.

It is to be noted, however, that the player must beware especially of the temptation to continue his play in the hope of recouping his losses, when the odds are in reality against him and he has already lost more than he is willing to do. It may be said that no man is willing to lose at poker, but certainly no man can expect always to win, and he who is not willing to lose sometimes does not play poker for the game, but for the stakes, and is a gambler rather than a gamester.

This temptation is a strong one, and often proves too strong even for good players. The possibility of winning is especially alluring when the winning seems an actual necessity, and even level-headed players are often found revising the principles of good play and taking longer chances, for the simple reason that the chances are running against them, instead of waiting for strong hands and good opportunities as they should do.

The poker player who watches the game as it should

be watched will not be long in doubt of the fact if the chances are really against him, instead of being equal with those of the other players, as they should be in theory. If he lose money steadily for a while he will be almost certain to declare that the cards are running against him and this may indeed be true. The one phenomenon of the game which can never be explained is the fact that any player in any game is liable to get a long series of remarkably good or remarkably poor hands. It may happen, of course, that good hands may run to all the party, or that there will be few good hands held by any one during a considerable time, but the unexplainable thing is the continued bad luck or good luck of some one player. This will often continue through an entire sitting or a series of sittings and it is even true that some players seem never to get cards equal to the average, while others will average, year in and year out, much better cards than their opponents. Why this should be true, as was said, cannot be explained on any theory, but no experienced player is likely to deny that it is.

There are two courses for the player when it has become apparent that the cards are actually running against him. He can quit the game, which is really the prudent thing to do, since no skill is likely to avail him much without at least a fair show of cards. Or, if desirous of playing, and willing to wait for a turn of luck, which will probably come sooner or later, he may continue in the game without serious loss if he will control his play firmly and not undertake to force the luck.

In doing this he should, whenever it is his turn to make the ante, put up the smallest amount allowed. A single white chip is sufficient, and will really answer his purpose as well as a large sum. It is true that any other player, when it comes his turn, may raise, but the ante man is not

obliged to make good, and if he has no encouragement in his hand to draw he will escape with the minimum of loss. On the other hand, if he has good cards, he can raise at the time of making good, and so test the hands opposed to him. Obviously this advantage is not open to him when a jack-pot is to be played, since he must put up his quota to get cards, but he can then apply the second rule of safety. He cannot play without some loss till his luck shall turn, and he is only concerned in making that loss as small as possible.

He should then refuse to draw cards on anything less than a pair of tens at the very least, and in jack-pots on less than openers. And, having drawn, he should refuse to see any bet whatever unless he shall have bettered his hand. If it be his first say it may be well to venture a chip on the chance that no one else has a hand worth playing, but if any one else shall raise he will be foolish to call unless he strongly suspects a bluff.

If it be objected that this is not playing poker, the reply is that a man should not play poker while the luck is positively against him. The only thing open to him if he does not withdraw is to stay in the game at as little expense as possible and this he can only do by refusing to bet until he gets cards to bet on. An impetuous man will find this difficult to do, and will be constantly tempted to take long chances in the betting with the hope of some sudden luck in the draw. If he be one whose temper is likely to get the better of him he will become exasperated by his ill fortune and will continue to chip in thus until his losses have been serious.

The game is played very differently by different people and if the play be what is called open — that is, if all in the party are betting freely in excess of the legitimate value of their cards — the danger to the man in bad luck

is even greater than it is in a less liberal game, since he will be almost sure to be influenced by the play of the others.

But although the player is likely to declare that it is the fault of his luck when he is beaten, and, although this may often be true, it is still more likely that his losses are attributable to his system of play or to the fact, which no player likes to acknowledge, that he is outclassed in skill. It may easily be that more experienced players than he can read his play well enough to tell with almost unfailing certainty when it is safe to bet against him and when he has really a strong hand. It is a test of a man's character to place him in a position of this kind, since he will be unwilling to admit the truth of it if he be vain, and unwilling to act upon his knowledge if he be obstinate. If, however, he be clearsighted and understand the game well enough to analyze the play from hand to hand, he will usually perceive the fact when he is fairly outplayed, and then if he is wise he will either retire from the game or continue in it for the sake of improving his play, exercising at the same time all the caution he can command.

Most likely of all the unsuccessful player has his own system to blame for his losses. While it is true that few players follow any general rule of play inflexibly but vary their drawing and betting according to circumstances, it is also true that every man who plays frequently has a system of his own, whether he is conscious of the fact or not. And it is by the small errors of these systems as they are commonly pursued that the weakness of the average man's play is manifested. Let a player keep account of his play for a single sitting of three or four hours and he will almost certainly find that he has lost more money by play which his judgment does not approve than he has by betting on hands which he had reason to believe good enough to bet on.

The first and commonest error is in paying to draw cards when the player has not as good a hand as one or more others probably have. In a game of seven players, for example, the chances are that one or more players will have at least as good a hand as a pair of Jacks. This is shown by the fact that with seven playing in a jack-pot it is usually opened on the first deal. Occasionally it will not be, but as a rule it will. Manifestly the jack-pot has nothing to do with the falling of the cards, therefore a player who pays to draw cards to less than a pair of Jacks is putting himself at a disadvantage before the draw. He will probably be beaten. It is true that he may improve his hand, but his chance of doing so is no better than that of the man who starts with a better hand than he has. Then if both improve in the draw he is still at a disadvantage. To continue, therefore, to draw cards to a hand that is probably outclassed is to invest money without an equal chance of getting it back.

Next to this error comes the habit of betting on cards that are probably inferior. If a man sits next to the age, and has therefore the first say, he will commonly put up a bet of some sort, large or small, whether or not he has improved in the draw. Sometimes, of course, he will win by it, since there will be times when no one else has bettered, but if he bets thus on a small hand he will usually lose, and the repeated loss of small sums will soon overbalance the occasional winning that he may make. It is more profitable in the long run to throw down poor cards without betting than it is to venture even a small bet on them in the hope, which may occasionally be realized, that all the hands out against them may be even of less value.

The third, and perhaps the worst error of the three, is the habit many players have of calling an opponent's hand without a justifiable belief in the strength of their own

cards. A bet may have been made in the first place with good judgment, based on reasonable grounds, but subsequent play may indicate clearly that the opponent is either bluffing or has the superior hand. In this case it sometimes calls for critical judgment to decide whether there is actually a bluff, in which case the first player would of course call, or whether it be a genuine case of strong cards. Here is a temptation, and a strong one, to call anyhow, lest the other man steal the pot. But the moment a player formulates a rule of play according to which he shall always call in such a case, that moment he commits himself to a hopelessly bad course of play. He must remember that his judgment is all he has to rely on, and when he bets against his judgment, even if it is only by calling to determine whether or not the other man is bluffing, he is playing against himself and against his only chance of winning.

Calling and Raising.

IT is accepted as an axiom by many poker players that "a hand that is strong enough to call with is strong enough to raise on." Whether the saying has or has not all the truth which would entitle it to be classed as axiomatic, it cannot be denied that there is some truth in it, for without some reason for supposing that his own hand is better than that of his antagonist no good poker player would think of calling. And if he has reason to think that he holds the stronger hand he is justified in raising. Theoretically, therefore, it would almost seem as if there ought to be no such thing as a call in a well-played game of poker, but that each and every pot should be relinquished by the last player, who finally concludes that his own hand is the weaker of the two. And in case each of two or more players should think with good reason that he held the best cards out, good play would require that the betting should continue indefinitely.

Practically, this is absurd. There are different reasons, each of which may justify a call, though it is undoubtedly true that the poor player is likely to lose more money by calling without good grounds for doing it than he is in almost any other way. It must be remembered in the first place that even if a player believes he has the best hand, it does not necessarily follow that it is good play for him to bet indefinitely on the strength of it. There is a point beyond which ordinary prudence will prevent a player from betting on any hand short of a Straight Flush, to say nothing of the ordinary common sense that ought to prevent any man from playing beyond his means.

In the second place, it must be remembered in backing any hand that the player has to take into consideration not only the hands which he thinks are opposed to his own, but also the possible chance of an error in his judgment and the still greater chance that one of the accidents of poker has happened, and that his opponent has filled a wholly unexpected hand. These possibilities are never to be left out of account, so that it becomes a habit with most players not to bet on any hand further than the amount, roughly speaking, which they consider such a hand worth. When once they reach that limit, it is common to find them calling, not because their judgment has been shaken as to the probability of their own cards being the best, but because on general principles it is not good play to invest too much money on any single chance.

Expressing this in other words, it may be said that a player must always calculate on having against him not merely the hand which his opponent may reasonably expect to make in the draw, electing to take one, two, or three cards, but the hand which he may possibly have made by one of the lucky accidents which are always liable to happen in the game.

An extreme illustration of this would be in the following example of actual play. The hands held, considering the draw, were certainly unusual, but not sufficiently so to be called remarkable. Six were playing, but when A opened a jack-pot all passed out excepting F, who raised it, he being the dealer. A saw the raise, having Kings and eights, but decided not to raise back, preferring to wait till after the draw, that he might judge as to what F had raised on.

In the draw A caught a third King, making a Full Hand. F, who had raised before the draw, took three cards, making it almost a moral certainty that he had raised

on a pair of Aces. The game was table stakes, and each man had about $100 in front of him. A, having full confidence in his hand, but not desiring to frighten F out of the betting, put up $10. He argued that if F had not bettered his hand he would lay it down against a one-card draw, but if he had bettered it he would probably raise, in which case he would probably have Aces up or three Aces.

A was delighted to see F put up $20, being a ten-dollar raise, and giving him credit for three Aces, promptly saw the raise and pushed forward $25 more. F then saw this raise and raised again, $25.

This made a case in which A had to consider the strength of the saying that a hand good enough to call on is good enough to raise on. He had a King Full, which would certainly be strong enough to call on, even against the improbable chance that F might have an Ace Full, the odds being decidedly against any such contingency, and the odds in the betting being the other way. This last was certainly the case, for there was $15 in the pot before it was opened and $65 before the draw. With the betting up to this point, there was $130, against which he had only to put up $25 if he should decide to call. No poker player would lay down in preference to this bet, under the circumstances, and all he had to study was the advisability of raising again.

The average player would probably have raised, but A hesitated. He knew his own hand was strong, and he felt certain that F had drawn to a pair of Aces, in which case he was either bluffing or had bettered his hand materially. His confident play made it probable that he had better than three Aces, for even with them he would hardly have pushed the betting as far as he had against a one-card draw. A knew him for a cautious player, and felt sure from his betting that he had better than threes, which would be, con-

sidering his draw, either a Full House or Four of a Kind. If it should be a Full, it would either be an Ace Full or one that A's hand would beat, but if it were one or the other, the chances were equal of its being an Ace Full, since he was just as likely to have drawn an Ace and a pair as three of one denomination. If it should be fours he had caught, of course A's hand was worthless.

This brought the personal equation into the problem, for A had necessarily to consider the play that F had already made, and taking that into consideration, he figured that there was a strong chance of his King Full being beaten. Under the circumstances, he felt that the rule did not hold good. He was not strong enough to raise, or he felt that he was not, but with the odds of $130 to $25 in his favor, he felt that he was strong enough to call.

Accordingly he called, and F showed down four Aces, of course taking the pot. In this case it certainly appeared to be demonstrated that A's reasoning had been correct, and that he was up against better than three Aces. Since he had no means of knowing whether it was fours, an Ace Full, or a smaller Full than his own, he was certainly justified in calling, while it was, to say the least, very questionable whether he would have been justified in raising. The result, while it indicated that he had been wrong in calling, was no proof of that proposition. On the contrary, although he was really up against four Aces, he had no good reason to suspect it, and his calling with a King Full was evidence of cautious instead of reckless play. It must be remembered always that it is no proof of bad play to lose a bet in poker. If the bet is made after the exercise of good judgment, and the recognition of all the chances for and against success, it is merely an action taken in view of the odds in the betting. In this case, although A lost, he was really making a bet in which the odds in his favor

were greater than the chances against him, although, as already shown, he did not feel that they were sufficiently greater to justify a raise.

Without going over the same ground too often it should be said that the beginner in poker has to learn to resist the temptation to call. This temptation comes in two forms, one entirely foreign to the game as it should be played, and the other based on a plain misunderstanding of the truth. The first is simple curiosity. A player has a hand which he has considered strong enough to bet on, and has accordingly put up his money. Some other player has raised him, and he feels that it is an open question whether the other player is bluffing or whether he has really the stronger hand. The first player does not feel strong enough to contest the matter further, but he has a curiosity to know what the other man is betting on. He may try to justify himself by saying that he is studying the other man's play when he calls, but such an occasion makes the study too expensive to be profitable. He must remember that curiosity has no place in poker, and will ruin any player who allows it to get the better of him to such an extent that he will spend his chips to gratify it.

The other inducement which will often make a beginner call when he ought not to, is the calculation of what he has already staked in the pot. It may be that he has already bet, say $2, and it costs him only $1 more to call. The natural thought is that the fact of having $2 already at stake justifies putting up another dollar to protect the two, but this is entirely erroneous. What has already been bet by the player himself has nothing whatever to do with the question whether he shall bet again. What is in the pot belongs in no sense to the man who put it in. He has parted with it definitely and conclusively, and it forms part of the odds against which he must put up his money if he has to bet again to win.

The safe way to study the problem is to remember that there are three things which a man may do when it comes his turn to bet on his hand provided some one has already betted. He may either throw down his cards or call or raise. One of the three he must do, but either one he may do, according to his judgment. If he has good reason, or in fact any reason at all, to suppose that there is a better hand than his own out against it, he must either lay down his cards or bluff. To bet against that supposition is only justified in such a case as that already described, when the odds in the betting are more favorable than the chances of the cards are unfavorable, and even that is only justifiable when the player has the last say.

In case it be decided to bluff, the player must calculate on the chances of having to encounter another bluff, and should be prepared to carry it out to a conclusion even if several more raises are necessary. If he has not sufficient confidence for this it is best not to attempt the bluff in the first place. To lay down is far better poker.

The second proposition, to call, has already been considered, but the third usually settles itself. It is much easier, under ordinary circumstances, to decide when it is good play to raise than it is to recognize the necessity for either of the other alternatives. The only danger to be apprehended in raising is that of overconfidence, and practice in playing is tolerably sure to cure that. One thing, however, should be remembered. The player who raises should never show any hesitation or doubt in doing it unless his hand is really so strong that he is anxious to be raised in return.

"Pressing the Luck."

IT seems, at first sight, entirely incongruous to recognize luck as a factor to be seriously considered in a study of the scientific aspect of any game, even Draw Poker, in which hardly any one can be found to deny the existence of luck. The obvious proposition is that, since luck is of its nature an uncertain thing while science should be certain, there can be no possibility of blending the two. Following this in logical sequence would seem to be the rule that a player who seeks to conduct his game on scientific principles must discard all considerations of luck from his calculations, while he who relies upon his luck need pay no attention to the mathematical probabilities involved in scientific play.

Neither the one proposition nor the other, however, will be found to result in successful poker. Dispute it and ridicule it as we may, nothing is more certain than that some persons are more lucky than others in the matter of getting desirable cards in the deal and in the draw, and it is equally certain that every one who plays poker habitually will find his luck varying from time to time in this particular. For the purpose of illustration this matter of the holding of cards may be considered independently of the question of the luck of opposing players, and the chance of any hand, however strong, being beaten by some other hand in the show-down. The inquiry will then resolve itself into the probability of any one player, on a given occasion, getting, let us say, a given card which he needs in the draw to fill an incomplete hand.

As simple a form as can be selected for the inquiry is the chance of filling a Flush. The Four Flush, lacking the one card needed to complete it, is a worthless hand which a single pair of deuces will beat, but if the fifth card of the suit comes in the draw, the hand at once becomes strong enough to justify heavy betting unless there should be plain indications that some other player is also exceptionally strong. The single-card draw to a Four Flush may therefore be accepted without question as one of the things which exemplify the chance or luck side of the game of Draw Poker. At the same time it is one of the simplest propositions on which the scientific side of the game can be illustrated.

Taking the latter side first, it may be said without the possibility of demur that the player drawing to a Four Flush has nine forty-sevenths of a certainty of filling his hand. That is, there are forty-seven cards in the pack which he has not seen after looking at the five which he has received in the draw, and as he holds four of some one suit, he knows that there are nine others of that suit among the forty-seven. He may reckon, therefore, with absolute certainty, on nine chances in forty-seven of catching the card he needs to make his Flush.

Following that out in the betting, let us suppose that there is $38 in the pot, that it is this player's last say, no one else having an opporunity to raise after he goes in, and that it costs him $9 to stay. If the filling of his Flush, then, would absolutely insure his winning the pot, it would be mathematically even gambling for him to put in the money. To proceed on this hypothesis, however, would be the crudest sort of play, since there remains a chance, and by no means a remote one, that his Flush, even if he secures it, may be beaten. Just what that chance is he has no means of figuring before the draw, excepting from the

tables, and even that he cannot decide positively till he knows how high the fifth card will be of his Flush, for any Flush excepting a Royal may be beaten by a higher Flush. After the draw he may be able to form a better opinion as to what his opponents hold, but until he knows what they call for his opinion cannot be formulated.

Practically, however, he knows that a Flush is a strong hand which will win more often than it will lose, and therefore if he can get odds of 38 to 9, or any better odds in the betting, it is scientifically correct play for him to put up his money and draw the one card. If he plays poker strictly according to the mathematical chances of the game he will follow this rule every time, throwing down his cards if the betting is not a trifle better than 4 to 1, and making the play whenever he can get those odds or better. Of course what he may do after the draw is another question which will depend not only on the card he draws, but on what the other players may do, and what he has reason to think they may hold. Each problem in poker, however, has to be decided as it comes up, without reference to what may happen afterward and solely in the light of what has happened before.

It is precisely at a point like this that a man who is modifying his play according to his luck, or according to the luck of some other man at the table, will be likely to pause and consider how the mathematical chances of the game are working in actual practice. As we have seen, according to the tables he ought to fill his Flush nine times out of every forty-seven times he draws to it, and there is no escape from the theoretical proposition that he will do so. Practically it seems to depend altogether on his individual luck whether the table is even approximately correct. A record was kept by one player for over a year of his experience in drawing to Four Flushes, and the record showed

that in the course of the year he filled his Flush only once out of every fourteen efforts, failing, on the average, thirteen times out of every fourteen. On the other hand, the author has seen a player fill nine Flushes in succession without failing once in the nine efforts, and three times out of the nine he drew two cards, while once he drew three to an Ace and tenspot of the same suit. This was in a single sitting, and the game broke up before the run of luck was broken, so that there is no way to judge whether the tenth and any successive efforts would or would not have been successful had they been made. It has been laid down, however, by no less an authority than "John Oakhurst, gambler," that "there is only one thing certain about luck, and that is that it is going to change." According to this theory, and according to common sense as well, it would be manifestly foolish to expect that player, or any other, no matter how good his luck might be, to go on indefinitely filling all the Flushes he should draw to, or even a majority of them, in a long-continued series of efforts.

The two instances here cited are undeniably exceptional. No man, however good his luck might be, would be justified in expecting to fill a Flush every time, and in making his bets on that hypothesis. He might, of course, win for a time, as a man might make a Royal Flush in a four-card draw, nothing within the range of the game being an impossible occurrence, but no one excepting a maniac would go on risking his money on wholly improbable contingencies unless he should get wholly improbable odds in the betting every time, and even at that he would be likely to lose in the long run.

The question is pertinent, however, and perfectly proper as to how far a player is justified in disregarding the mathematical chances when it becomes evident that the luck is running strongly in his favor, or, on the other hand, when

he is in decidedly poor luck. The answer to the question cannot be made in specific terms. nor would any player be likely to pay attention to it if it were made. Much depends, in a case like this, as much depends in the game of poker always, on the personal equation. As a matter of experience the man of strongly sanguine temperament usually loses money after a run of luck, for the reason that he relaxes his rules of play during its continuance to such an extent that he fails to get the full benefit of it, and continues the relaxation after the luck changes so that he forfeits much of his winnings.

It is entirely possible, however, for one who understands the principles of the game to take advantage of luck when it comes his way, without for a moment losing sight of the scientific rules which he has formulated for his own use. In the first place he may set it down as a certainty that he cannot have unusual luck for more than two or three hands without the other players in the game noticing it and taking it into their own calculations, so that they will be particularly cautious in playing against him until his luck shall turn. His first step in pressing his luck, therefore, may very properly be to take into account the caution or fear which he has inspired in his opponent, and infuse more of the element of bluff into his betting than is habitual with him. This, however, he should be careful not to overdo, lest, if he be called on too strong a bluff, he may dissipate that very belief in his luck which he reckons the others to have.

The temptation in pressing the luck in this direction or in any other is always to overdo it. For example, in the very case of drawing to a Flush, which has just been considered, the man who is pressing his luck is likely to take odds that are very little in his favor, coming into a pot when he only gets two or three to one, and drawing to a Flush, relying

on his luck to bring him the card that he wants and so justifying his bet. Of course, he may win. If his luck holds, he will, but the result is likely to be that he will still further relax his rules and presently lose. It is far better play for him to continue to keep in mind the laws of chance which should govern his betting before the draw, and wait until he finds his luck still good before plunging. It is not to be forgotten that though he may have filled half a dozen Flushes in succession, the odds against his filling the next one are still thirty-eight to nine, and that if he fails to fill, his preceding luck will be of no use to him beyond inspiring fear of the bluff he may decide to make. The best kind of luck may be frittered away by chipping against chances if this be done to excess, and it is much better to determine before playing that the luck still holds than it is to rely on it in the draw when the draw costs more than the mathematical chances justify.

Pressing the luck, therefore, may be set down as extremely doubtful play beyond a narrow limit, and that limit it is well to fix before the draw. After the draw has determined that there is ground for supposing that the luck is still good, a certain amount of confidence over and above what the player usually finds justified is natural, and is likely to prove valuable, but it is to be remembered that luck will bring winnings, even though the ordinary rules of caution be observed in the play, while nothing but the most extraordinary luck will pull the player through if he violates those rules.

The other side of the question is as to what the player should do when the luck runs against him, and to this it is much easier to give answer. No player, however skilful he may be, can hope to win with the cards always against him, and there are therefore only two courses in a case of this sort. He may abandon the game for the time, or if he

be disinclined for this, he may continue playing but refuse to enter any avoidable struggle unless the odds are strongly in his favor. In such a case he would not pay to draw cards to anything less than a pair of Aces, and would refuse to bet on those unless he bettered in the draw. And for a time, at least as long as he saw no signs of a change of luck, he would go no further than a call, even on a moderately strong hand. The change will come eventually, as Oakhurst declares, and it is mainly a question of nerve and sufficient funds for a man to remain until it does change. Few good players, however, will continue this sort of struggle very long.

Mental Discipline of the Game.

IT is not to be disputed that the game of Draw Poker tends strongly toward arousing emotions which, if uncontrolled, tend to disturb, if not destroy, the welfare of the individual. This fact is commonly used by those who condemn the game as the strongest possible argument against it and as a ground for denunciation, not only of the game itself, but of all who indulge in it.

Those who play the game sufficiently to know it and who understand its principles hold different views. These maintain that while the game unquestionably presents opportunities for the development of unworthy traits of character, and while it does offer temptations, it is still true that there is no other course of training which conduces to more self-control or to a better mastery of the very passions in question than the playing of Draw Poker. That it may be pursued to excess or unwisely in one way or another is undeniable, but that is true of everything else in the entire range of human experience. The moralist who holds that gambling in any form is of itself sinful will listen to nothing in extenuation of Draw Poker, and, if logical, will denounce fire insurance, if not even life insurance, on the same grounds; but he who recognizes that the greatest part of human endeavor involves something of the elements of gambling will be willing to admit that the game is not essentially evil and will perceive that it is extremely valuable as mental exercise. There is an element of moral training in it.

One of the first and most important principles of the game is that each player's rights are absolutely conserved

and must not be infringed in the interest of any other or of all the other players. Even in cases in which a penalty is inflicted for a misplay, or an error which may be committed purely by accident, the underlying principle is not that the person committing the error is to be punished. It is rather that no other player can be allowed to suffer by reason of an error for which he is not responsible. It is often said as explanation of this or that rule of play that the mistake of a player always works to his own disadvantage, and this is sometimes considered harsh. A little thought, however, will show that no error in poker can be condoned excepting at the expense of some person other than the one who committed the error. To inflict penalty for an error is therefore a guard on the rights of all, and is not to be considered in any other light.

One of the rules at almost the beginning of the game is always considered harsh by those who have not learned the application of this principle. It is the one which declares a hand foul if the player picks up more than five cards from the board. It is not to be supposed that a player will lift six cards unless he is deliberately intending to cheat, and usually when the mistake is made it is the man who has made it who draws the attention of the party to the fact. It therefore seems harsh, undoubtedly, to see the hand barred out as foul while the other players go on with the game. The first impression of the beginner who has this rule enforced against him is that he is made to suffer for an entirely unintentional mistake, innocently made, and that the others are enforcing the rule simply because they are too indifferent to his interests to delay their own play for a moment while the cards are dealt again.

It is only after he has learned more of the game that he comes to realize the importance of several truths that are involved. In the first place, if it be supposed that the

mistake was made by the dealer in giving six cards to some player instead of the regulation five, the dealer should, according to logic, be the one to suffer. But the dealer's mistake is one that hurts nobody, and, moreover, is one that is liable to occur by reason of defective cards, or a lack of manual dexterity for which no one can be held accountable. In addition to that, there is no way in which the dealer can be punished, without punishing some one else to a greater extent. If the deal should be declared foul, either the same player would be required to deal again or the deal would pass to the next player. In the first case it would work a distinct hardship to the man who happened to have the best hand out in the deal already made by depriving him of the opportunity to play the cards that had come to him legitimately, and this would be really punishing the innocent. If the second alternative were adopted of passing the deal to the next player, it would be the age man who would suffer, in that he would lose the privilege of the age which had come to him in his turn. In neither case would the dealer be the sufferer, which would be the end to be accomplished, and as neither of those penalties would work justice, it would be necessary to devise some other one. It is difficult to see just what penalty could be fixed to suit the case.

But as a matter of fact the dealer is not the real offender in the supposed case. Were it possible for a dealer to give out a foul hand to any player without that player discovering the fact in time to prevent being injured he would have that player or any other one at his mercy, and the game would immediately collapse, being deprived of all fairness and consequently of all interest. But no dealer can do this. He can certainly throw six cards to one player, and if the player lifts them from the table they become a foul hand, but because this error of throwing the extra card is one that may

be made without fault of the dealer and because it has no evil consequences necessarily, there is no penalty attached. No mischief whatever is done by the throwing of the extra card unless the player to whom it is thrown has the opportunity to see what it is, and this opportunity he cannot have unless he lifts his cards. It is therefore entirely proper that the responsibility for the error should be fixed upon the man who lifts the cards. Unless he lifts them no error is imputed. It is perfectly easy for him to see that he has the proper number of cards before looking at them, and it is his duty as well as his privilege to make sure of this before looking, since he must guard his own rights if he expects to enjoy them.

The real error, when this contingency arises, is thus seen to be committed by the man who picks up the foul hand, not by the man who places it before him. The entire responsibility rests upon him. Moreover, if there should be any advantage arising from the error, the man who looks at the extra card is the only one who can have the advantage, and it is entirely just and proper that he should be the one, and the only one, to suffer.

There is a still further consideration from which it appears that the enforcement of all penalties against the players who make the errors, and against no one else, is really in the interest of each player. Since it follows that no player can be made to suffer by the error of another, it remains absolutely true that each player's rights are guarded against the wrongful acts of every one at the board excepting himself. If all civilization could be conducted on an equally equitable basis, the greater part of the ills from which mankind now suffers would be remedied immediately. Again, it is to be observed that no penalty is enforced in Draw Poker beyond that of depriving a player of some advantage which, if he were allowed to benefit by

it, would be tainted with unfairness and the suspicion of fraud.

In other words, the element of revenge can never be included in any penalty. It is true that attempts have been made at times to enforce rules compelling a player to put up double the amount which he has unlawfully tried to win, but these attempts have failed, simply for the reason that no player who understands his own rights will submit to them. If he be shown to be in error, his claim to anything which is at stake, whether he has put up the whole of it or only a part, lapses instantly by reason of his error; but any attempt to collect a fine from what still remains in his possession, not having been put into the pot, or jeopardized by his own voluntary act, must fail from lack of jurisdiction and total lack of executive power. To collect such a fine would partake of the nature of robbery and would be diametrically opposed to the principles of Draw Poker.

One ground on which objection has sometimes been made to the game is that it is, as its detractors assert, a means by which a man seeks to deprive other men of their money without giving any equivalent. And this, it is asserted, constitutes the essential dishonesty of gambling. A little consideration will prove to any fair-minded person that this is not true. It is, of course, true that the result of a game of poker is that a man either wins or loses money, but it is distinctly untrue to say that one player takes another's money without giving an equivalent for it. In the first place, no player can take another player's money directly, until after he has parted with his claim of ownership in it. When money is put into the pot by any player, it ceases to belong to him and becomes the common property of all who are still interested in it, and not until all but one have voluntarily reliquished all claim to it, or until all who are interested have agreed to submit the question of owner-

ship to the test of the merits of the respective hands, can any one person claim it.

This may seem like splitting hairs, and undoubtedly if poker were a game of chance it would be idle to undertake to assert that the device of the pot was anything more than a cloak for gambling. As a matter of fact, however, poker is more a game of skill than it is of chance, and the struggle for the pot is really an effort to win by mental skill a sweepstakes purse made up on perfectly equitable methods. The errors made by poker players, which are commonly charged to the game itself, are really the results of inherent faults of character developed under pressure, and while it may be admitted on the one hand that weak men succumb to the fascination of the game, it is also true that stronger men are benefited by the discipline of it.

One of the commonest and strongest temptations of the game — the one which probably works more mischief than any other, and the one which is hardest of all to resist — is that which impels a man to keep on playing after he has lost too heavily, in the hope of recovering his losses. Probably more money is lost under these conditions than under any other that arise in the game. The poker player, therefore, who is really desirous of studying the game itself as a means of development, or as a healthful and invigorating mental pastime, rather than as a means of gambling, has no excuse if he allows himself to be drawn on into excessive and injurious indulgence, by the mere desire to recoup losses which he could not afford to make in the first place. By this weakness the gamester becomes the gambler, and the game itself is degraded from its proper status to the level of a mere gambling device.

Excess in one man's game is moderation in another's, and each one must be judge of what game he can or cannot afford to play, and of the amount of losses he can stand

without injury. This being determined, the player who suffers himself to be enticed into excessive play, shows a weakness which of itself demonstrates the fact that he is not and cannot be a good poker player. It has been many times said that it takes a good poker player to lay down a strong hand, but it may also be said with equal truth that it takes a good poker player to quit the game when the proper time has come to quit. He who cannot stop when he should is in danger and has no right to play at all. By this it is not meant that a man should always stop playing when he has lost a certain amount, though a resolution to that effect (the amount to be fixed by each player for himself to suit his own circumstances) would undoubtedly be a good one. What is meant, however, is that the player should always be able to see from the game itself what the cause of his losing is, and whether it is the part of wisdom for him to continue. Unfortunately, men do not, as a rule, pay attention to this, and comparatively few quit when they should.

A continued series of losses, even of a considerable amount, should not always be taken as a good reason for quitting. But if this series of losses should really be an indication that the player is outclassed by his adversaries, it is high time for him to resign his seat unless he can afford to keep on losing for the sake of improving his style of play by studying his opponents' methods. It is certain that every man must begin by playing with others who understand the game better than he, but it is suicidal for the average player to undertake to compete with experts on equal terms, excepting as a matter of education. It is not possible to arrange a handicap in the game of poker, and each player must acquire his knowledge and skill by competition on equal terms with all other players. It is by knowing whether he is outclassed that he will be enabled to escape serious damage.

When a player finds himself losing steadily in a game of poker, he should be able to analyze the game closely enough to understand the reason. It may be true, and often is, that he is the victim of a genuine run of hard luck. It often happens that a player will go on for hours without holding any good cards at all, or if he holds any, having them outclassed every time by the other players' hands. And even a more serious form is sometimes assumed by his bad luck, when he holds good hands frequently and has them beaten all the time by better ones. This is an element of the game which no man can overcome. The only possible defence is to play as cautiously as possible and lose as little as may be, till fortune smiles again and the cards begin to run the other way. If it were possible to foresee such runs, no man would play against them; and many players, when they find the cards running steadily to their hurt, make it a rule to quit the game rather than to wait for the turn.

Such runs of ill luck come to the best players as well as to others, and are by no means to be considered discouraging excepting for the moment. And the fact that they do occur often blinds the losers to the real truth of the case. which may be that they are losing because they cannot play as well as those they are pitted against. One's judgment is often blinded by a preconceived notion that he can play a good game, and he will blame the cards for his losses when he should really blame himself for not winning as much as he might when he holds the winning hand, and for losing more than he should when the others win.

It is an essential part of good play, therefore, that a man should study his opponents' game constantly from deal to deal, watching the winner's play in each instance, and noting as closely as possible how well each man takes advantage of his position in the betting and of the cards he holds. Under almost exactly similar circumstances a good

player will often make twice as much as a poor player out of the same hand and against similar hands held by his opponents.

If, therefore, the loser shall see that the others at the board are winning more money hand by hand when they do win, than he himself is winning when the pots fall to him, he will have found one danger signal. It is true that this is not an infallible test. The winner in one case may have strong hands out against him though his own hand is the strongest, and in the other case the winning hand may have nothing opposed to it which will call for a bet, so that a poor player may win more on Three of a Kind in one deal than a good player can win on Four of a Kind in another. The deals are of almost infinite variety, so that it would be almost an impossibility to find two in which exactly similar hands were held all around the board, with each hand in the same relative position.

The principles governing the play, however, are always the same, and it is possible for any good player, by watching a game for a while, to tell which one of those engaged in it is playing with the most nerve and the highest skill. Such observation is proverbially more difficult to one who is playing than to one who is looking on, but the player who is bent on learning all he can of the game must make it a rule to observe all the peculiarities of every man with whom he is playing, studying not only his style of handling his cards, but also his habit of betting, and the degree of aptitude with which he takes advantage of his chances of position, and the accuracy with which he gauges or seems to gauge the hands he has to play against.

If, then, the loser discovers that there are men in the game who win, when they do win, more than he does, when he wins, and if it appears that this preponderance of winnings comes, not from the accidents of the game giving bet-

ter opportunities, but from the superior skill with which advantage has been taken of those accidents, it is high time to withdraw. It will be urged that this withdrawal in the face of superior skill requires an amount of self-control that few men possess, and further that the only way a man can learn to play a really excellent game of poker is by studying the game of those who play better than he does, and so learning how to place himself on an equality with them. The truth is, however, that it is precisely this quality of self-control which is one of the prime necessities in the personal make-up of a really good poker player, and as to the necessity of playing with experts in order to become an expert, there is room for considerable doubt.

It is certainly true that much can be learned by playing against experts, but it is an expensive course of tuition, and the same results can probably be attained by playing with those who have only the same degree of skill, approximately, with yourself, providing you study the principles of the game and apply them so far as you can, experimentally, in your own play. Moreover, the man who has the opportunity to watch the play of experts as an onlooker can really, if he is a good student, learn more than the man of equal skill who is playing in the game. In some fashion, however, either as onlooker or participant, the student must give long and patient endeavor to the game before he can hope to play it as it should be played. He may play it successfully, without much knowledge of the game, if the cards happen to run his way; but he cannot play the game without good cards unless he studies the principles closely.

The Game Now Symmetrical, and Not Likely to be Changed.

THERE have been many attempts made, and probably there will be many more, as time goes on, to improve the game of Draw Poker by introducing new hands and by arbitrarily changing the rules of play in this and that particular, but it may be said generally that such attempts within the last thirty years have been failures. It is difficult to speak with precise accuracy concerning the genesis of the game, since no written record of it exists so far as is known to the public to-day. The original "Hoyle," in which book all known games of importance are described, which is even yet accepted as authority on disputed questions, makes no mention of poker; and although later editions of "Hoyle" have appeared in which poker has been described and its rules formulated, the fact that this work has been done by unknown authors has deprived it of all title to authority, and it remains true to-day that no work on the subject is unchallenged.

All that is positively known is that poker in a crude form began to be played in America in the first half of the nineteenth century and immediately caught the fancy of the American people. Up to the time of the Civil War, by which time it had come to be known as the great American game of cards, one improvement after another had been introduced until the game was usually played almost exactly, if not exactly, as it is now. The latest feature that has won universal favor was not, however, played in all circles until after the war, though it had already become popular and was coming to be acknowledged as a genuine

improvement. This was the Straight Flush, now held by all players to be the highest hand in the deck. The Straight Flush is itself a development of the Straight, which was, when first proposed, considered a bastard hand, concerning the value of which there has always been controversy. It was ranked lower than Three of a Kind for a considerable time, but was afterward fixed as the next in value below a Flush. There are many players, however, who are not satisfied with this classification, and in some circles it is now considered more valuable than the Flush, while a few players are inclined to rank it higher even than a Full.

Without going into a discussion, at this point, of the higher mathematics of the game, which, properly speaking, afford the ultimate test of the actual value of any hand, it may be said that the rules of poker, in the absence of any recognized authority, rest on the common consent of players, and that as this common consent can only be obtained as a result of practical experience in playing, it is still true that there are variations in these rules in different places, but that the tendency is for them to become more and more uniform. As a matter of fact they are pretty nearly uniform now, the test of experience having been so generally applied to all the attempted improvements, that only those which are practically in accord with the genius of the game have been generally adopted.

So far as the Straight is concerned, it is enough to say that as the game is usually played a Flush beats a Straight, but that there are circles in which the Straight beats a Full. It must be acknowledged that, mathematically speaking, it is easier to fill a Four Flush than a Four Straight, since there are nine chances in forty-seven filling the Flush and only eight in forty-seven filling a Straight.

On what theory the Straight can be held higher than the Flush, however, it is difficult to understand. since the

Flush is certainly the rarer hand of the two. It is easier to fill a Four Flush than a Four Straight, but the Four Straight is the more often held.

But, while it would be absurd to say of any such thing as a game, and more especially of such a complicated game as Draw Poker, that it cannot be improved, it is certainly true that the game is now so logical and so symmetrical in its arrangement of parts that no great change in it is to be anticipated. There is, of course, always room for improvement in any human institution, more especially in anything in the nature of a pastime, but the fact that Draw Poker has been played as much as it has, by such keen and intellectual gamesters, for so long a time without radical change may be taken as at least presumptive evidence that it is now practically perfect. For nearly half a century, roughly speaking, it was undergoing the formation process, and for nearly a third of a century it has been practically at a standstill, and this is a fair indication that no further changes are likely.

In the absence of any definite information, all statements of the origin of the game must of necessity be purely conjectural. Even the original name, Poker, is unexplained. It is probable, however, that the game itself began from a series of bets on the turn of a card. Just how or why the number of cards was at first limited to five can only be imagined, but it is a fact that the draw was unknown for a considerable period, and that, after it was introduced, there was a time when two games were played. They were called, by way of distinction, Draw Poker and Poker or Straight Poker. At the present time, however, the earlier game is not played at all, the superior merit of Draw Poker being universally acknowledged, and the game being always played in the improved form.

Another bit of evidence to the effect that poker origi-

nated, as was said, in betting on the turn of a card is to be found in a form of the game known as stud-horse poker. This was played very generally in the West thirty or forty years ago, and, indeed, has been said to be the oldest known form of poker. It has gone out of fashion so completely that it is actually unknown to many of the poker players of to-day, but a brief account of it is worth giving, not merely as a matter of curiosity, but as indicating the way in which the present game has been developed.

In stud-horse poker, after the shuffle and cut, the dealer delivers to each player one card, face down. After each one has looked at his card he deals one more card around, face upward. This lies on the table exposed, and betting is in order. When all the bets have been made that are desired, a third card is dealt to each player, face up. Then more bets may be made. The fourth card is dealt like the second and third, face up, and bets may be made once more before the last card is given out. This last one is dealt also face up, and the final betting goes on till all but the winner has been brought to a standstill.

As will be seen, stud-horse poker affords unlimited opportunity for bluffing and for heavy play, but it is crude and almost brutal in its fierceness, compared with the more subtle and intellectual play in Draw Poker. Such as it is, however, it is one form through which the game passed in its development.

By a consideration of this development it will be seen, readily enough, how the various hands or combinations possible in five cards have come to be classified, the value of the cards being borrowed from the game of whist, and the only puzzle being as to how the Straight came to be overlooked in the first place, and why it was so slow, as it undoubtedly was, in obtaining the recognition which was its due.

This much as to the classification of hands. The rules governing the betting are only such as insure orderly procedure and an equal opportunity to each player. While these rules certainly vary in different places, the tendency is toward uniformity, and as one form comes to be acknowledged better than another, it comes into the more general acceptance. One object of this present work is to demonstrate the reason of each rule and show the superiority of the one preferred in cases in which there has been a conflict of authority.

As to other proposed changes there is only one thing to be said. Whenever it shall be discovered that a new hand, or a new valuation, is of a nature that is likely to increase the pleasure or the excitement of the game, it will probably be tried by some players of an experimental turn of mind. If it shall prove to be entirely in harmony with the spirit of the game and with the rules governing the game as it is played now, and if, moreover, it shall be found to be an enjoyable addition, the chances are that it will spread from one circle to another until it shall come to be talked about by players generally. It will then, if of sufficient apparent value to be considered favorably, be tried by more and more players, until it may possibly come to be considered a legitimate part of the game. Gamesters of all kinds, however, are notoriously conservative, and poker players are especially so, and the chances of any more changes being made are therefore small.

For example, the use of the joker as a fifty-third card, with a value above any other card, has been looked on by many players as a real improvement. There is, however, an incongruity apparent at the very outset in this proposition. The value of the cards in poker, as was said, is based on their whist values, and there is not, and cannot be, room for a joker in the game of whist, it being borrowed from

the totally dissimilar game of euchre. This incongruity may not amount to a valid objection to the use of the joker, but it undoubtedly accounts for the disinclination of experienced poker players to adopt it. The general feeling was well expressed by a veteran poker player two or three years ago, when he said: "They asked me to join in a game of poker a little while ago, and I was going to do it, for I like poker when the stakes are not too large, but they told me they were playing with a joker. Now they may get up a game of poker one of these days with high, low, jack, big and little cassino and the right and left bowers in it, and it may prove to be a game that will be greatly enjoyed by those who like to play it. Certainly, I will have nothing to say against it. But I shall not consider the game as poker. When I play poker, I prefer to play the game I learned as poker, so I declined the invitation."

It would be rash, however, to say that poker will be generally played with a joker in the pack at some future day. It certainly adds to the variety of the game, for the lucky player who catches it in the deal can call it whatever he chooses, so that it not only increases the chances of filling any hand now played, but it introduces an entirely new set of hands — Five of a Kind — into the game. Moreover, there is nothing about this use of an extra card, which is inherently discordant with the game as it is usually played. It is enjoyed by many undoubtedly good players, and it is even declared by some that its use is increasing, so that, in spite of the prejudice against it, there is a possibility that it may win out. It would be difficult, however, to induce an orthodox player to admit the probability of such an outcome.

The joker is usually classed by such players as a companion of what are called freak hands, such as are proposed from time to time, but which have not yet been accorded

any recognition by really good players. This classification is not entirely just, though it is perhaps not wholly unjust. Certainly none of the freak hands have yet been generally adopted; but it is always possible that some combination will be discovered, which has value and character enough to command respect.

It was thought at one time that such a hand had been discovered in the blaze. This consisted of any five court cards. There was necessarily one pair in it, and sometimes two pairs, but its rank as a blaze was above two pairs and below Three of a Kind. As a hand it had an apparently distinctive character, since it was not readily to be mistaken even at a glance, and the percentage of chances against its being held in any given deal could easily enough be figured; but even among those who at first felt disposed to accept it as a member of the poker family of hands, it was not considered satisfactory, and after a brief and partial recognition it was rejected and soon forgotten.

The blaze, however, though it was so little thought of, and so soon discarded, was a better pretence at a hand than the so-called alternate Straight which was seriously proposed some years ago as a hand to be recognized. This is nothing more nor less than the sequence which omits each alternate card, as the deuce, four, six, eight and ten, or the Ace, Queen, ten, eight and six. Fantastic as the notion may seem to real students of the game, arguments were made, by some who strove to increase the possibilities of poker, in favor of recognizing the alternate Straight as a regular hand and assigning it a rank next to the Straight proper. It seems almost needless to say that these arguments did not prevail. Almost the only thing that could be said in their favor was that it was just as easy to figure the percentage of the chance of holding the alternate Straight as of the chance of any other hand. The obvious

reply to that was that, while it was undoubtedly easy to figure the percentage, it would be found by such figuring that the hand, which was not a satisfactory hand at best, would necessarily be ranked very much higher than the Straight if ranked at all, since there were nine possible Straights in every deal against every six possible alternate Straights, and anyhow, that the alternate Straight had a mongrel appearance, and not having a strongly defined, characteristic aspect, was unsatisfactory in every way. It was never adopted in any play unless as an experiment, and is now never referred to, excepting derisively, as a Chicago pelter. And, as it is utterly hopeless to attempt to better the Chicago pelter in the draw, it is commonly said that the only thing to do with it is to stand pat and bet all you have. As the value of such play consists entirely in the way in which the bluff is put up, the alternate Straight may properly be considered as having no value whatever.

There is a variation of poker reported as being played considerably in Mississippi and in certain of the river towns that may be supposed to have learned the new wrinkle from Mississippi players. It consists of including two new hands in the list of those having value assigned to them. The two hands are called little dog and big dog. The little dog is a hand running from deuce to seven, with any one of the intermediate cards — either the trey, four, five or six — missing. The big dog is a similar hand running from nine to Ace, with either the ten, Jack, Queen or King lacking. Fortunately, this particular form of mental weakness has not yet attacked Eastern players, and there is a strong probability that it will speedily die out, even among the feeble-minded players who have undertaken to introduce so absurd a proposition into the game.

Equally arbitrary and equally unjustifiable by the logic

of the game is the custom that was introduced twelve or fifteen years ago, of allowing a player to open a jack-pot on a pair of deuces. The deuces were the only exceptions made to the rule that a player must have Jacks or better in order to open the pot; and, excepting for the privilege of opening, they ranked no higher than at any other time, so that the man who elected to open on deuces was obliged to play his hand purely as a bluff unless he chanced to better it in the draw. Moreover, the fact that he could open on deuces inevitably raised the suspicion that he had possibly done so, and tended to make his bluff all the harder. A few notably interesting contests occurred as a result of the innovation, but it was decided before long that the effect of it was demoralizing and that it weakened the interest in the game instead of strengthening it.

The device of having a deck of sixty cards instead of fifty-two, in order to make the game easier to play in case there are more than seven at the table, can hardly be classed with the other attempts at improvement. The purpose is not to disturb any rules or any established values, but merely to save trouble in the deal by avoiding the necessity of shuffling the discard anew and dealing from it, as it frequently becomes necessary to do when there are more than seven playing. To this extent it almost appears justifiable, but there are nevertheless objections to the eleven and twelve cards which are introduced between the tens and the Jacks in order to make up the required number.

In the first place, the very object which it is sought to serve by making the pack larger is an undesirable one. The introduction of an eighth and a ninth player into the circle makes the game itself too clumsy. Seven players seem to be the limit beyond which the circle cannot be enlarged without confusion and a constant possibility of delay.

But aside from that fact, which seems to be well estab-

lished, the introduction of eight more cards into the deck upsets all the calculations of chances, or, rather, since new calculations are easily made, it tends to confuse the ordinary player by changing the established relation between the percentage of chances in the cards and the visible odds in the betting. As is well understood by all players, judicious bets can be made only by constantly bearing in mind the percentages of the draw. To bet judiciously, therefore, in a game played with a deck of sixty cards, requires a knowledge of a different table of chances from the one in ordinary use. Practically, this difference is not very great, but it is sufficient to disturb the player and so to affect his play.

It is not pretended that all the variations and attempts at improvement that have been made are included in those that have been described in this chapter. So far from that being true, it is likely that scores of others have been proposed and experimented with. It remains, however, a correct statement that the game has not been changed in any material particular for many years. And more than that, that it is not likely to be changed in any arbitrary fashion, or by the addition of any feature that shall not prove to be entirely harmonious with the existing rules that govern the playing of poker to-day.

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