

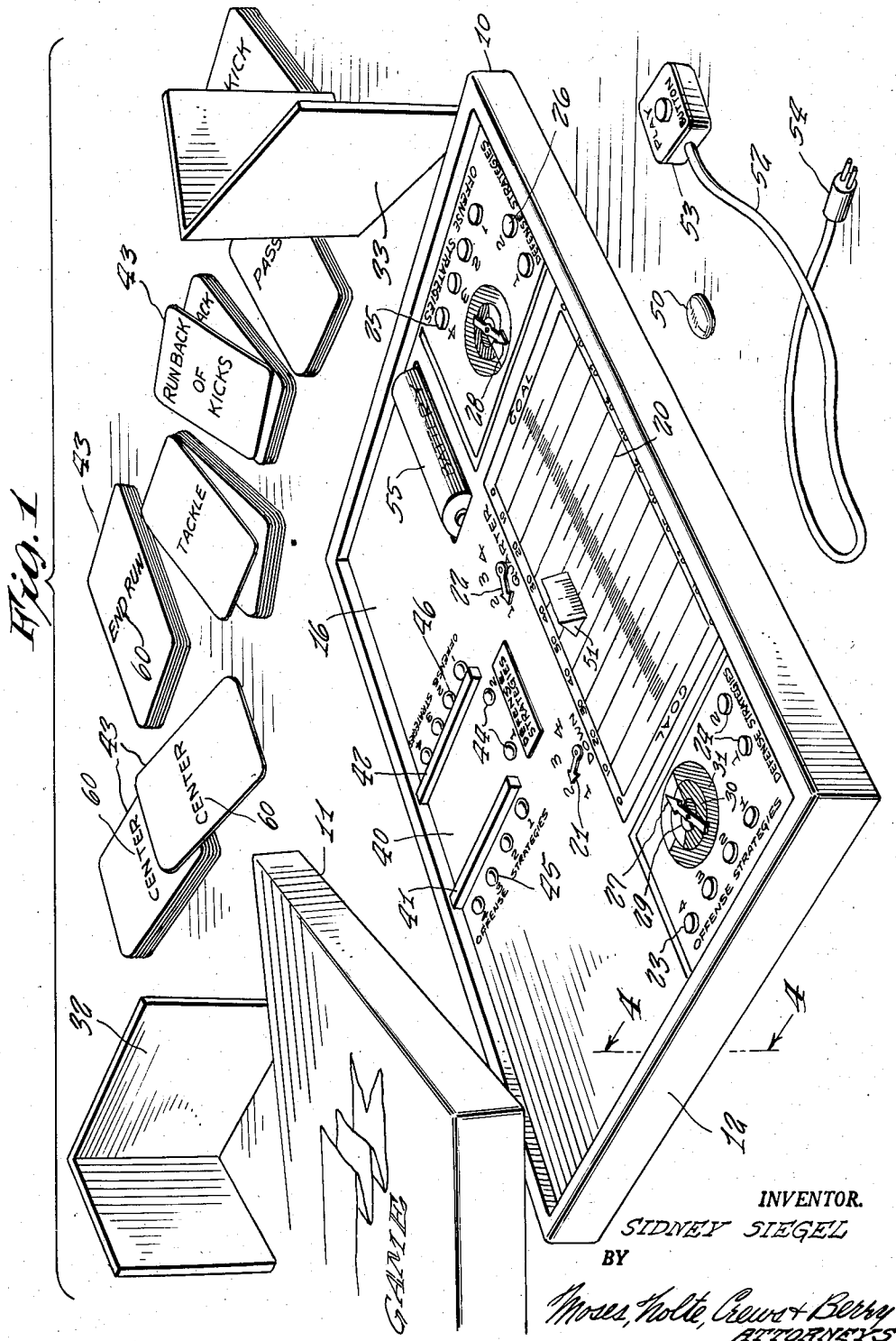
Feb. 17, 1959

S. SIEGEL
FOOTBALL GAME

2,873,971

Filed April 30, 1956

4 Sheets-Sheet 1



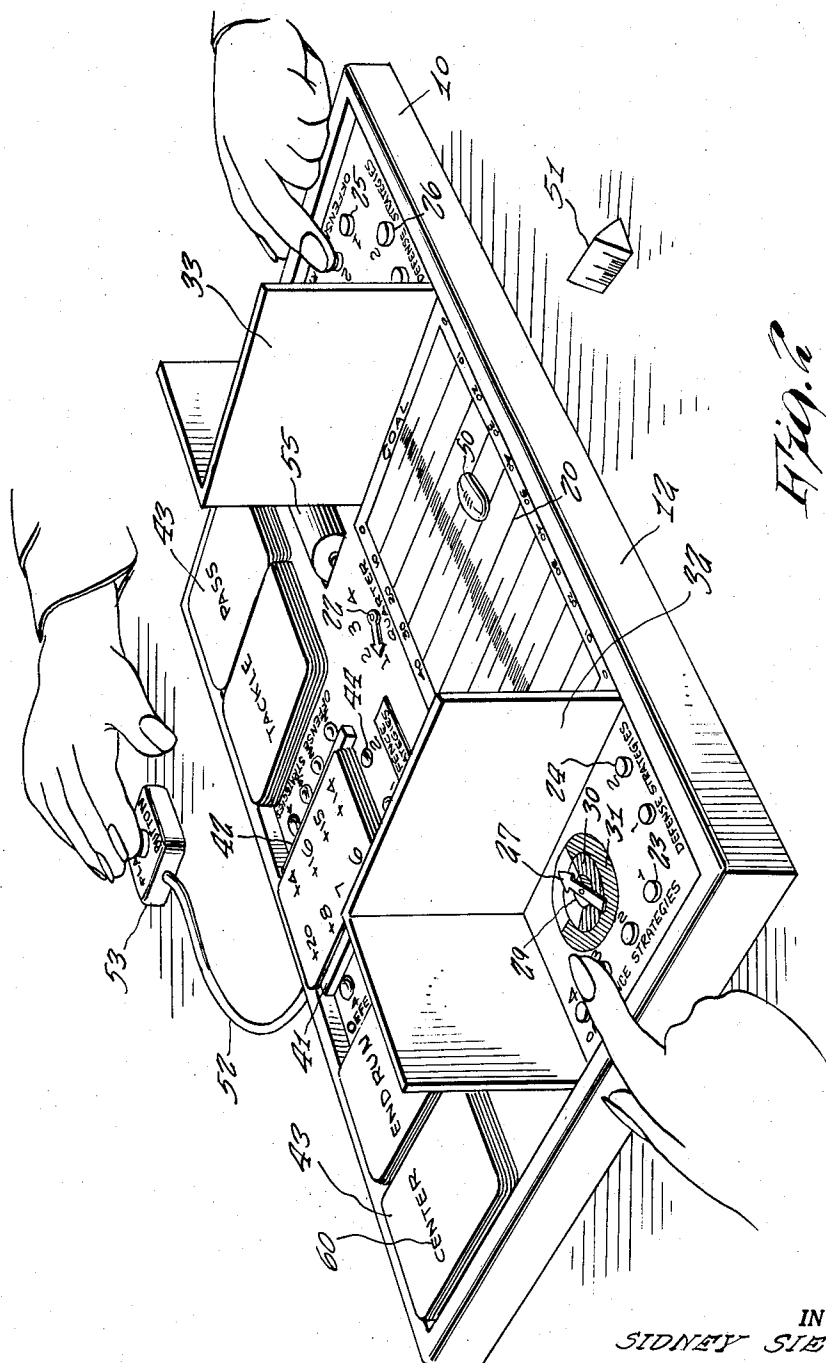
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4 Sheets-Sheet 2



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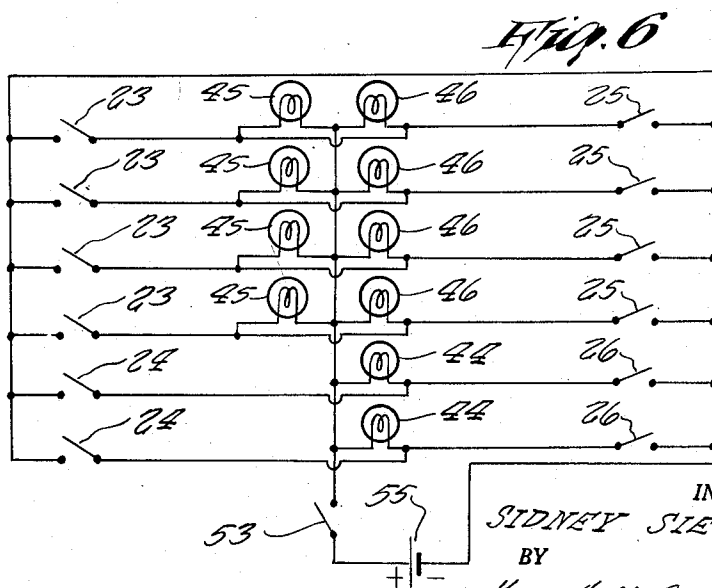
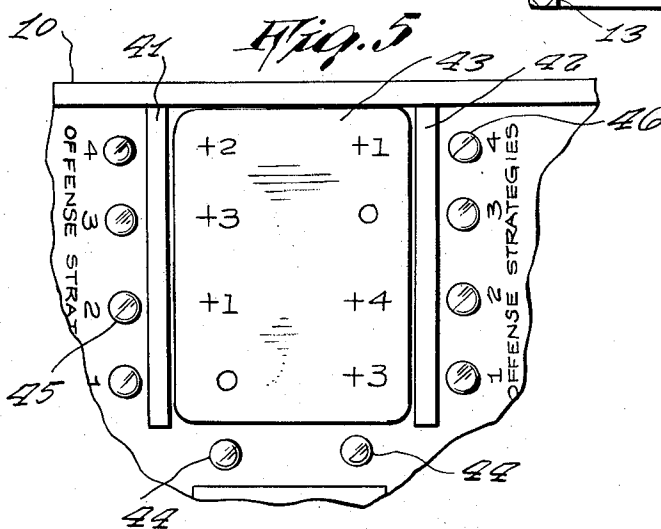
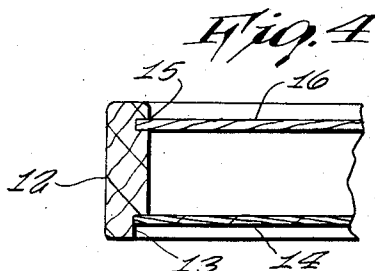
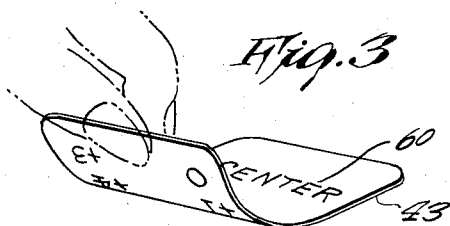
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FOOTBALL GAME

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4 Sheets-Sheet 3



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FOOTBALL GAME

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4 Sheets-Sheet 4

Fig. 7a

2	+6	+5
1	+5	+3
	1	2

Fig. 7b

4	+2	+0
3	+4	+1
2	+5	+6
1	+3	+7
	1	2

Fig. 7c

2	+9	-3
1	-1	-6
	1	2

Fig. 7d

2	+6	+4
1	+3	+5
	1	2

Fig. 7e

4	0	+3
3	+1	+5
2	+2	+5
1	+4	+3
	1	2

Fig. 7f

4	-3	-5
3	-4	-2
2	-4	-6
1	-5	-2
	1	2

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1

2,873,971

FOOTBALL GAME

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Application April 30, 1956, Serial No. 581,527

14 Claims. (Cl. 273—94)

The present invention relates to a simulated football game adapted to be played by two opposing players and particularly to a game which affords the players an opportunity for the exercise of the strategies of field football.

According to the present invention, there is provided a simulated football game, the successful playing of which is based on intelligence and skill rather than simply on luck. Several different sets of play cards may be provided requiring different ranges of skill so that the game may be played by young people as well as adults. The two opposing players function as quarterbacks of two opposing teams. Although a player need not understand and employ the Theory of Games of Strategy in order to enjoy and play the game, the game is designed so as to give scope for the use of the Theory of Games, so that victory will be gained by the player who is better able to employ the Theory of Games in making his playing decisions.

An object of the present invention is to provide a game which closely simulates an actual football game, uses the rules of play of field football and affords the players a wide range of utilization of the strategies applicable to field football, as well as practice in the application of the Theory of Games.

Other objects and advantages of the invention will become apparent and the invention itself will be fully understood from the following description and the drawing in which:

Fig. 1 is an exploded perspective view of one embodiment of the invention;

Fig. 2 is an assembled perspective view of the invention;

Fig. 3 is a view of a playing card;

Fig. 4 is a partial sectional view taken along the line 4—4 of Fig. 1;

Fig. 5 is a detailed view of the playing box;

Fig. 6 is a schematic circuit diagram of the electrical apparatus of the invention;

Figs. 7a—7f show a plurality of playing cards.

Referring to the drawing, the game includes a playing board 10 and a cover 11 for the playing board. The playing board may be in the form of a rectangular box having a frame 12 provided with a recess 13 for receiving a bottom plate 14. Near the top of frame 12 there is provided a groove 15 into which a top plate 16 is adapted to fit as indicated in Fig. 4.

The two opposing players sit at opposite ends of the playing board 10. In the middle portion of upper plate 16 there is provided a representation of a football field 20. The field 20 may be marked off in the same manner as an outdoor football field, that is, with 10 yard lines dividing the field and goal lines at each end of the field. The field may be further subdivided by five yard and one yard lines to facilitate play. Adjacent the field 20 there is a pointer 21 adapted to be turned to any one of four marked positions for indicating the down and a similar pointer 22 adapted to be turned to four marked positions

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for indicating the quarter. At one end of the board, there are a plurality of manually operable switches 23 marked "Offense Strategies" and a pair of switches marked "Defense Strategies." At the other end of the board, there are similar switches 25 and 26. Spinners 27 and 28 are mounted on the board adjacent the switches at each end. Round each spinner, there are three concentric rings. The innermost ring 29 is divided in half; the second ring 30 is divided into two portions having an angular ratio of two to one while the outermost ring 31 is divided into two portions having a ratio of 3 to 1. The innermost ring, for example, may be half red and half white; second ring 30 may be one-third white and two-thirds black, while outer ring 31 may have one-fourth of its area white while three-fourths is blue. The spinners may be used therefore to provide random selections in the ratio of 1 to 1, 2 to 1, or 3 to 1. The strategy switches and spinners can be hidden from the view of the opposing player by shields 32 and 33.

A playbox 40 is formed in a middle portion of the playboard 10 opposite the field. The playbox is outlined by one or more ridges or runners 41 and 42 and is adapted to receive play cards 43. Playbox 40 is lined by defense strategy lights 44 along the bottom thereof and offense strategy lights 45 and 46 along the sides thereof. Lights 45, 46 may be connected in parallel, thus two corresponding lights in rows 45 and 46 will be lit in order that each player may more readily see the play. Of course, one of the offense rows of lights 45 or 46 may be omitted.

The game further includes a simulated football 50 adapted to be moved along the playing field in accordance with the gain or loss on each play. A yard marker 51 is adapted to be moved along the board at one side of the field. Yard marker 51 is used as in field football to serve as a basis for judging whether a player has earned a first down. The yard marker is adapted to mark off ten yards from the position of the ball on the first down. The connections from strategy switches 23, 24, 25, 26 are adapted to extend through a cord 52 to a play button switch 53. The play button 53 can, therefore, be handed from one player to the other and pressed to light lights 44—46 after the strategy switches have been operated. Cord 52 has a plug 54 on the end thereof adapted to fit into a socket at the rear of frame 12 of board 10. The circuit for lights 44—46 may be energized by a battery 55.

As can be seen from Fig. 6, the two rows of offense strategy lights 45 and 46 are connected to battery 55 through the play button switch 53 and switches 23 and 25 in parallel with each other. Closing one of switches 23 or 25 and then closing switch 53, lights one pair of lights 45, 46. The defense strategy lights 44 are similarly connected to the battery 55 through switch 53 and through switches 24 and 26 in parallel with each other. Closing one of the switches 24 and 26 and then closing switch 53 causes one of the lights 44 to be lit. Thus, if one player should close one of the switches 23 or 24, and the other player should close one of the switches 26 or 25, and thereafter switch 53 should be closed, the result would be that one pair of offense strategy lights 45, 46 and one of the defense lights 44 would be lit. If, for example, the offense player should select offense light No. 4 and the defense player should select defense light No. 1 (Fig. 5), then the number plus 2 would be indicated on the card to represent a gain of two yards for the offense.

The rules for playing the game are essentially the same as the rules of football and no important departures from regulation football occur in the present game. Any specific rules of play not given in the discus-

sion below may, therefore, be assumed to be governed by the rules of outdoor football.

The play cards may consist of six stacks of cards of different colors, each color being individual to a particular type of play such as an end run, forward pass, a play off tackle, or through center. Each card bears on its back a designation 60 of the type of play. Before starting a game, the players separate the cards by colors and assemble them into different piles. Then each pile is thoroughly shuffled. After shuffling, each pile is placed on the table or the game board facing downward so that neither player can see the yardage markings of any top card until that card is drawn by the offense player and placed in the playbox. A coin may be tossed and the winner of the toss may elect to either kick-off or to receive. The loser of the toss will choose which goal he wishes to defend on the board. The player kicking off is on the offense and the ball is placed on his own 40 yard line. Offense then takes the top card from the "kick" pile of cards and places it in the play box. Offense presses one of the offense strategy switches and defense presses one of his defense strategy switches. Offense then presses the play button 53 to initiate the play. This lights up a defense light and an offense light and indicates at the intersection of these two lights on the card the yardage gain or loss for the play. The ball is then moved the number of yards indicated by the chosen number on the "kick" card. The opponent is now in possession of the ball and he runs it back from the kick-off by selecting and playing the top "run-back" card. For the purpose of the run-back, the receiver plays offense and the kicker plays defense and again they select their strategies by pressing their appropriate switches to determine the yardage on the run-back play.

After running back the kick-off, the receiver has a first down. He indicates this by setting the down marker 21 to 1. He also sets the yard marker 51 so that its edge nearest him is in line with the ball 50 before the first-down play is made. The yard marker 51 remains in that position until the next first down has been earned.

Play proceeds according to the rules of football. That is, the offense is given four downs in which to advance ten yards with the ball and earn another first down. If another first down is earned, down marker 21 is again set at 1 and the yard marker is moved into its new position. The ball changes hands whenever offense fails to gain ten yards, while retaining possession of the ball, in the course of his four downs.

In outdoor football, 25 seconds is the maximum period of time that may elapse between plays. Teams which takes a longer period are penalized for "delaying the game." Experienced players may invoke the 25-second time limit on plays when they are using either Junior Strategist or Senior Strategist cards (which will be described later). That is, no more than 25 seconds should elapse between the time that Offense places the play card in the play box 40 and the time that the strategy lights are both illuminated by the pressing of the play button 53. Inexperienced players will find this time limit harassing, and they may relax the time requirement. However, a time limit upon which both agree should be chosen, and it must be adhered to in every play. When playing with the Super Strategist cards, players who are using Game Theory will not be able to use the 25-second time limit.

This is the procedure for getting off a play within the time limit. Offense takes the top card from the chosen pile and sets it in the play box. Timing begins at the instant that the card is exposed in the box. As soon as offense has selected his strategy, he presses the appropriate offense strategy switch button 23 or 25 and then asks "Ready?" Defense having pressed one of the defense strategy buttons 24 or 26 must be able to reply that he is ready. Offense then presses play button 53, and the two lights illuminate on the board.

If defense is not ready with his strategy in time to accede to offense's announcement immediately, defense is penalized 5 yards for delaying the game. If offense fails to get a play off within the time limit, he is penalized 5 yards for delaying the game.

After a penalty for delaying the game, the down remains the same and offense begins a new play. He may either retain the play card already in the box, or he may select a new card. In either case, timing begins anew.

For players who adhere to the 25-second time limit on each play, quarters are also timed and should be fifteen minutes long. For others, a quarter has been completed when the play box has been filled to capacity with cards, i. e., when thirty cards have been played.

Before beginning a new quarter, the players remove all cards from the play box 40, sort them according to type (color), and return each card to the pile of its type. Each pile is then thoroughly shuffled.

The quarter marker 22 is moved to the number of the forthcoming quarter. Players change goals between quarters, so that the ball must be moved from its position at the end of the quarter to a corresponding position in the other half of the field.

Offense scores a touchdown when he moves the ball across his opponent's goal line. A touchdown earns him 6 points in score.

The success or failure of the conversion attempt for a point after touchdown is determined by a spin of defense's spinner, say, 27. Defense's shield 32 is set aside for this spin. The middle ring 30 is used. If the pointer comes to rest on black, the extra point is earned by offense; if it lands on white, the conversion attempt has failed and the score remains as before. With the use of this middle ring 30 on spinner 27, offense has a 2-to-1 chance to earn the point after touchdown for his score.

After the attempt at conversion, the ball is placed on the 40 yard line of the player who has just scored, and he kicks off to his opponent by following the kick-off procedure described above.

Offense may attempt a field goal at any time. A card from the kick pile is used for the play. Offense must declare his intention to kick a field goal before turning up the kick card into the play box.

In outdoor football, a successful field goal combines sufficient distance with accuracy of aim. In this game, the distance of the kick is determined by the usual method; it is indicated by the number intersected by the two illuminated strategy lights. If offense thereby earns sufficient distance to put his ball over defense's goal line, he then spins his spinner to determine the "accuracy" of his kick. His shield is removed for this spin. The inner ring 29 is used. If the pointer comes to rest on red, the field goal is achieved and offense has thereby earned 3 points. He then moves the ball to his 40 yard line for a kick-off.

If the field goal attempt falls short, i. e., if the kick has insufficient distance, the other player then takes the ball on a run-back play, after which he has a first down. If the field goal attempt has sufficient distance but lacks "accuracy" (i. e., if the ball goes over defense's goal line but the spinner then lands on white), the ball is moved to the nearby 20-yard line, where it changes hands and a first down begins.

Offense may occasionally lose yardage when he is already deep in his own territory. If he loses so much yardage that the ball is grounded behind his own goal line at the end of a play, defense thereby scores a safety and thus earns 2 points of score. After a safety, the team scored against kicks off from its 40-yard line.

If a player who is on offense should press one of his own two defense strategy buttons, he would be offside. This would be revealed on the board, because no offense light would be illuminated. A player who is on defense may similarly go offside by pressing one of his offense strategy buttons. In both cases, the penalty against the offender is 5 yards. The down remains the same, and the offense

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has the option of either retaining the same card in the play box or selecting another.

The 5-yard penalties for delaying the game and for off-side playing have already been discussed. Other penalties may appear on some play cards. If a penalty appearing on a play card is "chosen," i. e., if it appears at the intersection of the two illuminated strategy lights in the play, then the appropriate yardage is marked off against the stated offender. The down remains the same, and offense chooses another card for the next play, if he wishes.

In outdoor football, the quarterback may call a variety of plays, and the yardage gained or lost with each depends partly on the nature of the play, and partly on the success of the team in getting off the play. In this game, success in getting off a play is determined by the choices among strategies made by each other. In addition, however, the yardage gained or lost depends on the nature of the play selected by the quarterback-player. Thus, for example, the center and tackle plays have small gains, typically, but they do not risk major losses. Pass and end run plays, on the other hand, may yield dramatic gains, but they also risk large losses, for the ball-carrier may be brought down far behind the line of scrimmage. Kick plays usually yield large gains, but they require giving up the ball to the other team, and therefore the quarterback typically selects them only as a last resort, or when his team is trapped so deep in its own territory that they have little room for safe maneuvering. The numerical values on the various play cards reflect these features of plays: the center and tackle plays typically yield smaller gains or losses than the pass, end run, or kick plays.

The present game is designed to create an interest in the Theory of Games of Strategy and to afford players an opportunity of acquiring practice in the application of this theory. Within the fields of mathematics, economics and statistics, scholars have considered the problem of devising strategies which best protect one's own interest in a conflict situation. The theory refers to conflicts as games, and the theory is known as The Theory of Games of Strategy. The fundamental work in this field is J. Von Neumann and O. Morgenstern's "Theory of Games and Economic Behavior" and a less technical book describing the theory is "The Compleat Strategist" by J. D. Williams. In game theory, the present game would be called a "zero-sum-two-person-game" and for such games, optimum strategies have been worked out which protect the interest of the player by maximizing his winnings and minimizing his losses. I shall now describe the manner in which my game utilizes the theory of games of strategy.

A plurality of sets of cards are provided, for example, three sets having different orders of complexity. Consider the card shown in Fig. 7a drawn from the simplest set of cards, called the junior strategist pack. It is obvious from this card that offense is going to win some yardage from this play, for every number is positive. Therefore, defense's problem is to minimize offense's gain and offense's problem is to maximize his possible gain. Offense looks at the two rows to find what is the worst that can happen to him in choosing each one. If he plays strategy 1, his worst gain may be three yards and if he plays strategy 2, his worst gain will be five yards, so he chooses to play strategy 2.

Defense looks at the two columns to determine what is the worst that can happen to him in choosing either. He sees that in column 1, he may lose six yards and in column 2, he can only lose five yards and so he chooses column 2. It will be seen that these players have chosen column 2, row 2 and have selected the number 5 which represents the worst that can happen to both of them for their chosen strategies. Such a number is called a saddle point. A play card has a saddle point where the maximum of a column is equal to the minimum of its row. In the card of Fig. 7a, the maximum of column 2, which is 5, is also the minimum of row 2. Thus, this

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card has the saddle point 5. Whenever a card has a saddle point, the players should always play the strategies which intersect at the saddle point. This is the first rule of strategy-choosing.

Consider now the card of Fig. 7b taken from the senior strategist pack, which is the set having intermediate complexity and a 4 by 2 matrix of numbers. Again, offense is sure to gain yardage and he examines each row to determine the smallest yardage which could be yielded by each of the four alternatives. He finds that at worst he will gain 3 yards in row 1, 5 in row 2, 1 in row 3 and 0 in row 4. Defense, on the other hand, finds that at worst he will lose 5 yards in column 1 and 7 yards in column 2. Thus, plus 5 is the saddle point for this card, since it is the maximum of column 1 and simultaneously the minimum of row 2. Both player's best strategy is to select the coordinates of the saddle point.

The cards of Figs. 7a and 7b have only positive numbers. Saddle points may also occur on cards which carry both gains and losses for offense. Thus, in Fig. 7c, the maximum of column 2, which is -3, is also the minimum for row 2, and thus -3 is the saddle point for the card. Therefore, offense and defense should both play strategy 2.

The game thus gives players exercise in detecting saddle points, but the task of the player would be fairly simple if every card had a saddle point. Hence, not all cards have saddle points, as for example the card in Fig. 7d. When a card has no saddle point, neither player can choose a simple strategy and play it consistently every time the card appears. Rather, each side must adopt an overall plan called a "grand strategy" which involves playing both alternatives on occasion. Thus, for the card in Fig. 7d, strategy 2 is more attractive than 1 for offense and he, therefore, might simply choose to play it consistently. But defense could quickly detect such a plan and counter it by always playing defense strategy 2. Offense would then always be held to winning only 4 yards, whereas two of the values on the card are greater than 4. Any other simple plan that offense might adopt could be detected by defense and successfully countered.

Offense can outwit his opponent by devising a plan for mixing his strategies which cannot be fathomed by defense, so that defense can never predict which offense strategy will be used on a given play. The best method for arriving at an unfathomable overall plan is to use a random device for selecting the strategy each time the card is played. Even offense himself then will not know which strategy he will play and therefore defense cannot surely predict it.

To get a random play, the player uses his spinner or 28. His problem now is which concentric ring 29-31 should be used. For this purpose offense observes that the difference between the two values in row 1 is 2 and the difference between the two values in row 2 is also 2. This means that the two strategies are equally attractive and therefore, should be played equally often in the long run. In other words, he needs a 1 to 1 chance event to determine which strategy should be played on any given trial. The inner circle 29 on his spinner provides such an event. Hence when encountering a two by two card with no saddle point in which the odds are 1 to 1, offense should spin his spinner and play strategy 1 whenever the pointer lands on red and strategy 2, whenever it lands on white. Following such a mixed strategy, offense would make an average gain of four and a half yards, which is greater than the gain he could make under any simple detectable plan.

Following the same reasoning, defense should choose to play a random strategy. To find what his odds are, defense subtracts the bottom number in each column from the top number, arriving at 3 and -1. For the purpose of determining odds, a negative sign has no significance. Hence, for the card of Fig. 7d, defense's odds are 3 to 1 and he therefore uses the outer ring 31 of his spinner.

Defense would play column 2 when his spinner lands on blue in the outer ring and play column 1 when it lands on white. Defense's average loss will be as follows: When offense strategy 1 is played, defense's loss will be $\frac{1}{4} \times 3 + \frac{3}{4} \times 5 = 4\frac{1}{2}$ and when offense strategy 2 is played, it will be $\frac{1}{4} \times 6 + \frac{3}{4} \times 4 = 4\frac{1}{2}$. We may now summarize the procedure to be followed by a game theorist whenever he is playing a 2 by 2 game which has no saddle point. Each player figures his odds, assigns the larger number in those odds to the "favorite" strategy, that is, the one in which the two yard values are closer together, and he assigns the smaller number to the other strategy or "long shot." He then uses his spinner as the chance event which determines which strategy should be used in a given play. All 2 by 2 cards in the present game have odds which are either 1 to 1, 2 to 1 or 3 to 1 so that the spinners on the board are useful in all cases.

The cards having a 2 by 4 matrix are designed so that every card either has a saddle point or else has the characteristic called "dominance" which enables it to be simplified to a 2 by 2 game. Dominance can be explained with reference to the card shown in Fig. 7e. Consider this card from the viewpoint of offense. It is clear that offense should not play strategy 4 because offense strategy 3 is superior to offense strategy 4 in both columns, or on a box-by-box basis. In such a case, it is said that 3 "dominates" 4. Examining offense strategies 2 and 3, it is found that on a box-by-box basis, 2 dominates 3. It is clear also that offense strategy 2 dominates 4 as well. Offense strategy 1 however, although it is also dominant over 4, is neither dominant over 2 nor dominated by 2. Hence, for the card as shown in Fig. 7e, offense should never play either 3 or 4 since both are dominated by other strategies. This being the case, the card in Fig. 7e presents what is fundamentally a 2 by 2 game. The players need consider only offense strategies 1 and 2. Dealing with offense and defense strategies 1 and 2, it is seen that there is no saddle point and the game should be played with mixed strategies as described above. Offense's odds are 3 to 1 in favor of offense strategy 1, the favorite, and defense's odds are 1 to 1.

As another example, we may consider the card shown in Fig. 7f. On this card, offense strategy 4 dominates 2 since, on a box-by-box basis, the losses that offense will incur are smaller in 4 than in 2. Moreover, offense strategy 3 dominates 1, for the losses would be the same against defense strategy 2 but would be greater in 1 against defense strategy 1. Since offense strategies 1 and 2 are both dominated, the play centers on offense strategies 3 and 4 and the game again becomes a 2 by 2 game. The players would again use the spinners if they follow game theory and offense's odds would be 1 to 1 and defense's odds would be 3 to 1 with defense strategy 1 as a favorite.

In game theory terms, the three sets of cards provided with the game may be described as follows. Junior Strategist cards are 2-by-2 matrices having no negative numbers. Games are of either the saddle point or mixed strategy types. Where mixed strategies are called for, either 1-to-1 or 2-to-1 probability mixtures are used. All games have optimum solutions, i. e., all are soluble.

Senior Strategist cards are 2-by-4 matrices having both positive and negative numbers. Successful solution of the Senior Strategist games requires a knowledge of saddle points, dominance, and mixed strategies. By the proper application of game theory methods, all matrices without saddle points can be reduced to 2-by-2 games requiring mixed strategies that call for either 1-to-1, 2-to-1, or 3-to-1 probability mixtures. All have optimum solutions, i. e., all are soluble.

Super strategist cards are 2-by-4 matrices having both positive and negative numbers. Successful solution of the super strategist games requires a knowledge of saddle points, dominance, and mixed strategies. Some matrices reduce to 2-by-2 games, some to 2-by-3 games, and some

remain as 2-by-4 games. Where mixed strategies are called for, either 1-to-1, 2-to-1, or 3-to-1 probability mixtures are used. With the application of more advanced methods from game theory, optimum mixed strategies can be found for any card, i. e., all super strategist games are soluble, although they are more difficult than those in the senior strategist pack.

It can be seen that the present game affords players with a knowledge of football the opportunity to use their skill in selecting plays and deciding how to play these plays after they have been selected. The game also encourages the players to learn the theory of games of strategy and to practice the application of this theory. The game has a high entertainment value for these reasons and for the fact that it closely simulates actual field football and permits a utilization of the rules and understanding of field football.

I have described what I believe to be the best embodiment of my invention. I do not wish, however, to be confined to the embodiment shown, but what I desire to cover by Letters Patent is set forth in the appended claims.

I claim:

1. A simulated football game comprising a playing board having a representation of a football field on a middle portion thereof, a plurality of playing cards, a rectangular playing box on a middle portion of said board for receiving the playing cards, two rectangular coordinate rows of lights bordering two adjacent sides of said playing box, first strategy switches operable by one player and located near one end of said board, second strategy switches operable by the opposing player and located at the opposite end of said board, means including said switches for selecting each light by operation of a switch at either end of the board, said playing cards having on one side thereof representations of a yardage gain or loss at each point defined by said rectangular coordinate lights, and a marker means movable over the football field in accordance with the yardage indicated on a card when one player selects a light along one coordinate and the other player selects a light along the other coordinate.

2. A game according to claim 1, wherein each light of the row on the side of said playing box toward said one end of the board is connected in parallel with a corresponding light in a row on the opposite side of said playing box.

3. A game according to claim 1, including play button switch means for completing the circuits of the lights selected by the strategy switches.

4. A game according to claim 3, wherein a flexible two conductor cord connects the play button switch means to the board.

5. A game according to claim 1, wherein the playing cards have representations of different types of football plays on their opposite sides.

6. A game according to claim 1, wherein one set of said cards has two columns of representations with four representations in each column.

7. A game according to claim 1, wherein one set of said cards has two columns of representations with two representations in each column.

8. A game according to claim 1, wherein the marker means is a simulated football.

9. A game according to claim 1, including yard marker means movable along one edge of the field for marking off ten yards.

10. A game according to claim 1, including a rotatable pointer and a dial therefor for indicating the number of downs and a second rotatable pointer and a dial therefor for indicating the number of quarters.

11. A game according to claim 1, including shields for guarding the first and second switches, respectively, from the view of the opposing player.

12. A game according to claim 1, including a spinner within the area guarded by each shield, the dial for each

spinner consisting of concentric rings having markings dividing each complete ring into two portions, the angular extent of the two portions of the different rings having different ratios.

13. A game according to claim 1, wherein the representations on each of a plurality of said cards are numbers having a "saddle point" at which the maximum of a column on said card equals the minimum of a row on said card and the numbers on some of the remaining cards have "dominance" such that the number in a first selected row of a column has an advantage of selection over the corresponding number of at least one other selected row of that column and the remaining numbers of the first selected row are not less advantageous than corresponding numbers of the other selected rows in other columns.

14. A simulated football game comprising a playing board having a representation of a football field thereon, a plurality of playing cards, a rectangular playing box mounted on a middle portion of the board for receiving the cards, said cards having on one side thereof repre-

sentations of yardage gains or losses arranged in rows and columns, selecting means mounted on said board and including manually operable elements mounted on said board at each end thereof for enabling one player to select a column and another player to select a row without revealing his selection to the other player, said selecting means including control means fastened to said board for causing simultaneous revelation of the selected row and column to both players, said selecting means including means on said board disposed along the edges of the playing box for indicating the columns and rows.

References Cited in the file of this patent

UNITED STATES PATENTS

1,577,932	Palese	Mar. 23, 1923
1,992,475	De Hart	Feb. 26, 1935
2,029,834	Prentice	Feb. 4, 1936
2,205,415	Keely et al.	June 25, 1940
2,276,599	Tassano	Mar. 17, 1942