US 20040173965A1

(19) **United States**
(12) **Patent Application Publication** (10) Pub. No.: **US 2004/0173965 A1**
Stanek (43) **Pub. Date:** **Sep. 9, 2004**

(54) **LOTTERY GAME**

(76) Inventor: **Edward Stanek**, Des Moines, IA (US)

Correspondence Address:
**DAVIS, BROWN, KOEHN, SHORS &
ROBERTS, P.C.
THE FINANCIAL CENTER
666 WALNUT STREET
SUITE 2500
DES MOINES, IA 50309-3993 (US)**

(21) Appl. No.: **10/383,470**

(22) Filed: **Mar. 7, 2003**

Publication Classification

(51) Int. Cl.^{7} A63F 3/06

(52) U.S. Cl. 273/269

(57) **ABSTRACT**

A lottery game having a first pool of numbers and a second pool of numbers. The lottery operator picks a predetermined number of selections out of the first pool and each player of the lottery game also picks out the same predetermined number of selections out of the first pool. The lottery operator picks two, or more, selections out of the second pool while each player is allowed to pick only one selection out of the second pool. The jackpot prize is won by matching all selections from the first pool and any of the lottery operator selections out of the second pool. By adjusting the number of selections in each pool, the prize structure of the novel lottery game increases the amount of money awarded to jackpot and lower range subordinate prizes and decreases the amount paid to intermediate range subordinate prizes.

LOTTERY GAME

BACKGROUND OF THE INVENTION

[0001]   1. Field of the Invention

[0002]   The invention relates generally to lottery games and, more specifically, to lotto games that have a first pool out of which a player draws the same number of options as the lottery operator and a second pool out of which the player draws a smaller number of options than the lottery operator.

[0003]   2. Background of the Prior Art

[0004]   Many different types of lottery games have been sold over the course of history in various jurisdictions. The "traditional" game has been sold for several hundred years. This game is based on the concept of a raffle. Generally, tickets are sold with unique numbers. The drawing mechanism is developed, often using balls, sometimes thousands of them, each with a unique number corresponding to a ticket. Other times individual digits for winning numbers are drawn from a series of machines. The drawings are held so that a large prize and subordinate prizes are paid according to the unique numbers drawn and delegated to a particular prize level. Sometimes subordinate prizes are paid for matching part but not all of the numbers as long as the digits being matched are a subset of the digits on the balls drawn in exact order.

[0005]   Instant lottery tickets, also called scratch tickets, were invented in the second half of the 20th century. They utilize a secure printing medium with numbers or symbols covered by latex or some other material. The covering is scratched and players win prizes by adding up, lining up, or matching covered symbols. Various patents have been issued relative to the substrate, security precautions, symbol coverings, and play styles for these types of games. They now account for roughly half of lottery sales in North America.

[0006]   Another type of lottery ticket is the pull-tab ticket. It utilizes layers of cardboard glued together, with one layer having a series of perforations to form tabs. As the tabs are pulled away from the ticket they reveal symbols underneath and matching various combinations of symbols leads to the winning of prizes.

[0007]   The last category of lottery type games are generally referred to as lotto games and are based on the concept of picking numbers. These games usually involve players picking their own numbers or using a computer or some other mechanism to choose the numbers, in an attempt to match the numbers against those drawn by the lottery. The lotto concept was originally developed in Italy about 1580. It evolved from bets being placed on which candidates were chosen at random to serve in the senate. The betting was so popular among the citizenry that the incidence of the drawings was increased and the names of senators changed to numbers.

[0008]   One of the most successful lotto type games in modern times is commonly known as pick 3. Players choose three digits from zero to nine. The lottery chooses three digits from zero to nine. If the player's numbers match the lottery's numbers in exact order, a top prize is won. Other betting variations can be made where a player chooses to mach the two front digits, the two back digits, the first and last digit, or some combination of the above. The game was typically run manually and illegally by crime networks for generations in large cities in the United States. State lotteries began to offer the game and computerized it so that it could be played efficiently on a daily basis. A similar game has been developed for matching four digits.

[0009]   Another typical lotto game in the United States and much of the rest of the world involves establishing a field of numbers from one to X. A player chooses, say, six of these numbers. The lottery then draws six numbers and a top prize is won if all numbers match in any order. The odds of winning the top prize can be altered by making X a larger number. In doing so there will be fewer winners of the top prize, which allows lottery sellers to offer a large jackpot prize. The prize can further be enhanced if no winner is chosen in a particular drawing. The lottery is then able to bank part or all of the non-won prize money from a previous drawing and offer it as an incentive for sales in a subsequent drawing, by increasing the size of the jackpot. In typical lotto games of this nature, subordinate prizes are also awarded for the matching of five, four, or even three of the six numbers drawn in any order. A typical prize structure for a pick 6 out of 30 game is to pay the jackpot prize if all 6 matches are correct, the approximate average odds of which are 1:593,775; pay $100 if there are 5 matches, the approximate average odds of which are 1:4,124; pay $10 if there are 4 matches, the approximate average odds of which are 1:144; and provide a free play if there are 3 matches, the approximate average odds of which are 1:15. Of course, the allocation of prize money to be divided is subject to selection or design for each ticket sold.

[0010]   Keno is a lottery game in which the house draws a number of balls, say, from a group or field of balls that is larger than the number of balls selected by a player, but any match between the balls selected by the player to the balls drawn by the house counts. Lotto games are actually a subset of keno games; in lotto games, the number of balls drawn by the house or lottery equals the number of balls picked by the player.

[0011]   In contrast, higher prizes can be offered by establishing a matrix of different size. If a game is chosen where the goal is to match 6 of 49, then a typical prize structure may be to pay out $2,000,000 if there are 6 matches, having an approximate average number of prizes for each drawing of less than one; $65,816.40 if there are 5 matches and a match with a bonus number, having an approximate average numbers of prizes for each drawing of 8; $1,784.80 if there are 5 matches, having an approximate average numbers of prizes for each drawing of 236; $68.10 if there are 4 matches, having an approximate average numbers of prizes for each drawing of 11,857; and $10 if there are 3 matches, having an approximate average numbers of prizes for each drawing of 213,760. A variation of this game with smaller top prizes but better odds is a pick 5 game, a game involving matching five numbers by the player's choice in the drawing in any order. There is also a variation with seven numbers.

[0012]   Another variation on this concept has emerged in the last decade, typically called "rolldown" in the United States. In a rolldown lotto game everything proceeds as in a typical pick six or pick five lotto game, as above, except that in the event that there is no jackpot winner, prize money that

has not been won is allocated to smaller prizes rather than being banked to enhance subsequent jackpots. Therefore the lack of a jackpot winner provides money to enhance the size of the prizes for lower tier winners. A typical prize structure and relative occurrences for a pick 5 out of 55 rolldown game may be to pay the jackpot if all 5 numbers are matched, the probability of which is 1:3,478,761; pay $500 if 4 numbers are matched, the probability of which is 1:13,915; pay $10 if 3 numbers are matched, the probability of which is 1:284; and pay $1 if 2 numbers are matched, the probability of which is 1:18.

[0013] In some instances a bonus ball can be added to a lotto game to create a prize smaller than the jackpot prize but larger than any of the other prizes. So, for instance, in a pick six lotto game a player matches only five of the six numbers drawn by the lottery; however, the lottery has also drawn a seventh ball, the bonus ball, which if paired with any five of the six other numbers drawn by the lottery creates a prize intermediate between matching five and matching the six original balls drawn.

[0014] In the last decade a new high jackpot game was developed called Powerball® (Multi-State Lottery Association, West Des Moines, Iowa). It was emulated by the Big Game in the United States (now Mega Millions), by Powerball in Australia, and similar games introduced in other countries. Unlike lotto, where the player picks six balls from one to N drawn by the lottery, the player instead chooses five numbers from one to X, and one number from one to Y. The lottery then draws five numbers from one to X and one number from one to Y from separate drawing machines and prizes are awarded according to various matches. The Powerball® lottery game is a combination of two lotto games in one. Both games must be won to win the jackpot prize. It is also designed so that any player matching the single ball drawn from the one to Y device wins a prize. The concept has been extraordinarily successful. Table 1 lays out a prize structure applicable to a typical Powerball® lottery game.

because there are more possible combinations of matches that can be made by the two separate fields and two drawing mechanisms. For instance, in a pick six game the only possibilities of matches are to ultimately guess six, five, four, three, two, one and zero numbers; a total of seven choices. Therefore only seven prize levels can be offered. However, with the concept of the Powerball® lottery game, there are eleven possible matches.

[0016] A game in which the likelihood of winning the top prize and also increasing the amount of money available for paying subordinate prizes at the lower levels have interest to lottery operators. This game will be popular to players because a larger number of players will be subordinate prize winners, a factor that is known to increase subsequent sales. At the same time, there will be more highly publicized top prizes awarded, further generating player participation. A game of this type, given the same amount of ticket sales, will necessarily pay less money to intermediate and higher subordinate prizes, but these prizes do not have as much impact on player participation as the lower subordinate and top prize awards. A particular embodiment of this novel game is one in which there is a first pool of numbers from which a player and the lottery operator pick an equal number of selections and a second pool from which a player picks only one number whereas the lottery operator picks two numbers. The odds of winning from the first pool are unaffected, whereas the odds of picking a winning number from the second pool are doubled.

SUMMARY OF THE INVENTION

[0017] The present invention is a lotto game in which selections are made from two pools of numbers. If the first pool is defined to have a total of X selections, the lottery operator picks x selections out of the first pool and a player also picks x selections out of the first pool. If the second pool is defined to have Y selections, a player picks one selection from the second pool while the operator picks two or more

TABLE 1

Prize Structure for a Double Lottery (5/49 + 1/42) Game - One Play for $1

	Odds	Number of Winners	Prize Levels	Prize Cost	Prize % of Sales
Match 5 + 1	80,089,128.00	1	$46,762,840	23,381,420	29.1942
Match 5 + 0	1,953,393.37	41	100,000	4,100,00	5.1193
Match 4 + 1	364,041.49	220	5,000	1,100,000	1.3735
Match 4 + 0	8,879.06	9,020	100	902,000	1.1262
Match 3 + 1	8,466.08	9,460	100	946,000	1.1812
Match 3 + 0	206.49	387,860	7	2,715,020	3.3900
Match 2 + 1	604.72	132,440	7	927,080	1.1576
Match 2 + 0	14.75	5,430,040		0	0.000
Match 1 + 1	117.99	678,755	4	2,715,020	3.3900
Match 1 + 0	2.878	27,828,955		0	0.0000
Match 0 + 1	73.75	1,086,008	3	3,258,024	4.0680
Match 0 + 0	180	44,526,328		0	0.0000
Totals	1.00	80,089,128		40,044,564	50.0000
Overall Odds:	34.76	2,303805			

[0015] Although the player is still only picking six numbers, drawing them from two separate fields can greatly increase the odds of matching all numbers correctly while maintaining relatively good odds of low level matches. The number of different intermediate prize levels that can also be offered is greater than that available for a pick six lotto game

selections from the second pool. The odds of matching all x selections out of the first pool are unchanged from the known, single bonus selection game in which only one selection is made by the lottery operator from the second pool. However, the odds of a player matching a selection of the lottery operator from the second pool is the same

multiple as the multiple number of selections from the second pool made by the lottery; i.e., if the lottery operator picks two selections from the second pool, the odds of a player matching one of the selections is twice that of the known bonus ball game. By increasing the number of selections in both pools and then making it easier to accomplish matches on drawings from the second pool by having the lottery operator make multiple selections, the practical effect is to move prize money from the matches on the first pool to prizes that are won on matching only the second pool or both pools together. The novel game allows continued funding for the top or jackpot prizes and enhanced smaller prizes at the expense of some of the intermediate range subordinate prizes. The intermediate range prizes that do not require matches from both pools have less money available which is balanced by the odds that make those prizes less likely to be won.

[0018] An object of the present invention is to provide a lotto game that increases the odds of winning top or jackpot prizes.

[0019] Another object of the present invention is to provide a lotto game that pays an increased percentage of prize money to lower range subordinate winners.

[0020] Another object of the present invention is to increase the odds of winning top or jackpot prizes and increasing the money awarded to lower range subordinate prizes at the expense of intermediate range prizes.

[0021] These and other objects of the invention will be appreciated by those skilled in the art upon a review and understanding of this specification and the appended claims.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

[0022] An example of a known two pool lottery game is the Powerball® lottery game. Unlike lotto, where the player picks six balls from one to N drawn by the lottery operator, the player instead chooses five numbers from one to X, and one number from one to Y. The lottery then draws five numbers from one to X and one number from one to Y from separate drawing machines and prizes are awarded accord-

ing to various matches. The Powerball® lottery game is a combination of two lotto games in one. Both games must be won to win the jackpot prize. It is also designed so that any player matching the single ball drawn from the one to Y device wins a prize.

[0023] The lottery game of the present invention is a variation of this known two pool lottery game. In this game, the lottery operator and the players pick the same number of selections out of the first pool, but the lottery operator selects two or more numbers out of the second pool while the players are allowed to select only one number from second pool. For example, if the first pool has a total of X selections and the lottery operator picks x selections, then each player also picks x selections out of the first pool of X. The lottery operator may pick two selections out of the second pool of Y total selections whereas each player is allowed to pick only one selection of the second pool of Y selections. As in the known Powerball® lottery game, a player must match all selections from both pools to win the jackpot prize. The odds of a player winning a prize based only by matching numbers from the first pool remain unchanged, while the odds of winning any prize based on matching a number from the second pool are doubled. The numbers X, Y, and x are chosen by the lottery operator to create a game that has the desired prize structure. For example, in comparison to the known Powerball® lottery game, increasing X and Y, that is, the number of balls in both pools, and having the lottery operator pick two numbers from the second pool, effectively moves prize money from the matches on the first pool to prizes that are won on matching only the second pool or both pools together.

[0024] Table 2 is prize structure for a hypothetical lotto game of interest in which X is 61, Y is 51 and x is 5. Accordingly, this is a lottery game in which 5 numbers are picked from a first pool of 61 and each player picks one number from a second pool of 51 while the lottery operator picks 2 numbers from the second pool of 51. The tickets are sold for $2 each. Given a sellout of the game where each chance purchased is unique, the prizes paid are illustrated according to rules where the percentage of sales allocated to that prize is specified in the right hand column.

TABLE 2

Prize Structure
5/61 + 1/2/51 Game; One Play for $2

	Odds	Number of Winners	Prize Levels Cash	Prize Cost	Prize % Of Sales
Match 5 + 1	151,703,248.500000	1	$45,820,957	$45,820,957	14.8296%
Match 5	6,191,969.326531	25	$ 1,000,000	$24,500,000	8.0750%
Match 4 + 1	541,797.316071	280	$ 10,000	$ 2,800,000	0.9229%
Match 4	22,114.176166	6,860	$ 1,500	$10,290,000	3.3915%
Match 3 + 1	9,850.860292	15,400	$ 100	$ 1,540,000	0.5076%
Match 3	402.075930	377,300	$ 21	$ 7,923,300	2.6114%
Match 2 + 1	547.270016	277,200	$ 21	$ 5,821,200	1.9186%
Match 2	22.337552	6,791,400		$ 0	0.0000%
Match 1 + 1	82.606795	1,836,450	$ 11	$20,200,950	6.6580%
Match 1	3.371706	44,993,025		$ 0	0.0000%
Match 0 + 1	39.714805	3,819,816	$ 7	$26,738,712	8.8128%

4

TABLE 2-continued

Prize Structure
5/61 + 1/2/51 Game; One Play for $2

	Odds	Number of Winners	Prize Levels Cash	Prize Cost	Prize % Of Sales
Match 0	1.621012	93,585,492		$ 0	0.0000%
Totals	1.000000	151,703,249	Total Prize Cost:	$145,635,119	47.7274%
			Prize Reserve	$ 6,068,130	2.0000%
Overall Odds:	23.953151	6,333,332	Return to Lottery:	$151,703,249	50.0000%

[0025]   Table 3 is prize structure for a traditional two-pool lotto game in which both the lottery operator and the players pick one number out of a pool of 61 and 5 numbers out of a pool of 51. The tickets are sold for $2 each. Given a sellout of the game where each chance purchased is unique, the prizes paid are illustrated according to rules where the percentage of sales allocated to that prize is specified in the right hand column. The prize structure can be compared to that of the game of the present invention described in Table 2.

TABLE 3

Prize Structure
5/51 + 1/61 Game; One Play for $2

	Odds	Number of Winners	Prize Levels Cash	Prize Cost	Prize % Of Sales
Match 5 + 1	143,292,660.000000	1	24,543,407.00	24,543,407.00	8.5641%
Match 5 + 0	2,388,211.000000	60	$ 1,000,000	$ 60,000,000	20.936%
Match 4 + 1	623,011.565217	220	$ 10,000	$ 2,200,000	0.7677%
Match 4 + 0	10,376.007241	13,810	$ 1,500	$ 20,715,000	7.2282%
Match 3 + 1	13,844.701449	10,350	$ 100	$ 1,035,000	0.3611%
Match 3 + 0	230.745024	621,000	$ 21	$ 13,041,000	4.5505%
Match 2 + 1	943.956917	151,800	$ 21	$ 3,187,800	1.1123%
Match 2 + 0	15.732615	9,108,000		$ 0	0.0000%
Match 1 + 1	175.619892	815,925	$ 11	$ 8,975,175	3.1318%
Match 1 + 0	2.926998	48,955,500		$ 0	0.0000%
Match 0 + 1	104.535650	1,370,754	$ 7	$ 9,595,278	3.3481%
Match 0 + 0	1.742261	82,245,240		$ 0	0.0000%
Totals	1.000000	143,292,660	Total Prize Cost:	$143,292,660	50.000%
Overall Odds:	48.021616	2,983,920	Lottery Return:	$143,292,660	50.000%

[0026]   Table 4 is prize structure for a traditional two-pool lotto game in which both the lottery operator and the players pick one number out of a pool of 51 and 5 numbers out of a pool of 61. The tickets are sold for $2 each. Given a sellout of the game where each chance purchased is unique, the prizes paid are illustrated according to rules where the percentage of sales allocated to that prize is specified in the right hand column. The prize structure can be compared to that of the game of the present invention described in Table 2 and the prize structure of the related game described in Table 3.

TABLE 4

Prize Structure
5/61 + 1/51 Game; One Play for $2

	Odds	Number of Winners	Prize Levels Cash	Prize Cost	Prize % Of Sales
Match 5 + 1	303,406,497.000000	1	159,645,635.00	159,645,635.00	26.3089%
Match 5 + 0	6,068,129.940000	50	$ 1,000,000	$ 50,000,000	8.2398%
Match 4 + 1	1,083,594.632143	220	$ 10,000	$ 2,200,000	0.3625%

TABLE 4-continued

Prize Structure
5/61 + 1/51 Game; One Play for $2

	Odds	Number of Winners	Prize Levels Cash	Prize Cost	Prize % Of Sales
Match 4 + 0	21,579.409459	14,060	$1,500	$ 21,090,000	3.4755%
Match 3 + 1	19,701.720584	15,400	$ 100	$ 1,540,000	0.2538%
Match 3 + 0	394.034412	770,000	$ 21	$ 16,170,000	2.6647%
Match 2 + 1	1,094.540032	277,200	$ 21	$ 5,821,200	0.9593%
Match 2 + 0	21.890801	13,860,000		$ 0	0.0000%
Match 1 + 1	165.213590	1,836,450	$ 11	$ 20,200,950	3.3290%
Match 1 + 0	3.304272	91,822,500		$ 0	0.0000%
Match 0 + 1	79.429610	3,819,816	$ 7	$ 26,738,712	4.4064%
Match 0 + 0	1.588592	190,990,800		$ 0	0.0000%
Totals	1.000000	303,406,497	Total Prize Cost:	$303,406,497	50.0000%
Overall Odds:	45.061283	6,733,197	Lottery Return:	$303,406,497	50.0000%

[0027] While the specific examples described in this disclosure have a first pool of numbers out of which both the lottery and the players make the same number of picks out of the pool and a second pool where the player draws a smaller number of picks than the lottery owner (for example 5/61 and 1/2/51), the pools could be reversed so that there is an increased chance of matching the first pool and the lottery owner and players make the same number of picks out of the second pool (for example, 1/2/51 and 5/61). Further, while the specific examples have the lottery owner drawing two numbers out of a pool while the players draw only one, the lottery owner could alternatively pick three or more numbers and the players pick any number less than the number picked by the lottery owner (for example, 5/61 and 1/3/51 or 5/61 and 2/3/51). Another alternative game within the scope of this invention is a game that may be described as a keno-keno game which would provide for the lottery owner to make a larger number of picks than the players out of both pools (for example, 5/6/61 and 1/2/51). It is also within the scope of this invention to have more than two pools of numbers with one or more of the pools having the feature of having the lottery owner make more picks than the players (for example, 5/51 and 2/25 and 1/2/45).

[0028] The foregoing descriptions comprise illustrative embodiments of the present inventions. The foregoing embodiments and the methods described herein may vary based on the ability, experience, and preference of those skilled in the art. Merely listing the steps of the method in a certain order does not necessarily constitute any limitation on the order of the steps of the method. The foregoing description and drawings merely explain and illustrate the invention, and the invention is not limited thereto, except insofar as the claims are so limited. Those skilled in the art who have the disclosure before them will be able to make modifications and variations therein without departing from the scope of the invention.

I claim:

1. A lottery game operated by a lottery operator which sells chances to a plurality of players, comprising a first pool from which a player picks a predetermined number of selections and from which the lottery operator picks the same number of selections, and a second pool from which the player picks one selection and the lottery operator picks multiple selections.

2. A lottery game as defined in claim 1, wherein the lottery operator picks two selections.

3. A lottery game as defined in claim 1, further comprising a third pool from which a player picks a predetermined number of selections and from which the lottery operator picks the same number of selections.

4. A lottery game as defined in claim 1, further comprising a third pool from which the player picks one selection and the lottery operator picks multiple selections.

5. A lottery game operated by a lottery operator which sells chances to a plurality of players, comprising a first pool from which a player picks a predetermined number of selections and from which the lottery operator picks the same number of selections, and a second pool from which the player picks a predetermined number of selection and the lottery operator picks a number of selections that is greater than the predetermined number of selections made by the player from the second pool.

6. A lottery game, comprising a first lotto game in which a player picks a predetermined number of selections that matches the number of selections made by an operator of the game, and a second lotto game in which a player picks a single selection while the operator picks two or more selections.

7. A lottery game, comprising two lotto games in which prize money from the matches on the first game is reduced and prize money that is won by matching only the second game or by matching both games together is increased.

* * * * *