



(51) International Patent Classification:

G07F 17/32 (2006.01) A63F 13/70 (2014.01)
A63F 13/45 (2014.01) G06F 21/31 (2013.01)

(21) International Application Number:

PCT/CA2014/050081

(22) International Filing Date:

6 February 2014 (06.02.2014)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/761,594 6 February 2013 (06.02.2013) US
61/761,595 6 February 2013 (06.02.2013) US

(71) Applicant: **XERAFLOP TECHNOLOGIES INC.**
[CA/CA]; 210-1807 Maritime Mews, Vancouver, British
Columbia V6H 3S3 (CA).

(72) Inventor: **BALLMAN, Glenn Stacey**; 3903-23rd Avenue,
South West, Calgary, Alberta T3E 0J9 (CA).

(74) Agents: **RATTRAY, Todd A.** et al.; c/o Oyen Wiggs
Green & Mutala LLP, 480 - The Station, 601 West Cor-
dova Street, Vancouver, British Columbia V6B 1G1 (CA).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,
SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM,
ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,

[Continued on next page]

(54) Title: ENTERTAINMENT APPARATUS, SYSTEMS AND METHODS INVOLVING PARI-MUTUEL WAGERING

(57) Abstract: A system allows users to placing pari-
mutuel wagers. The system comprises a processor in
communication with a user interface and one or more
displays. The processor is configured to: provide, to the
user, an ability to place pari-mutuel wagers on one or
more outcomes of each of a plurality of events, via the
user interface; receive, from the user via the user inter-
face, a wager corresponding to an outcome of a selected
event from among the plurality of events; and in re-
sponse to receiving the wager from the user: place the
wager on the outcome of the selected event; and control
a selected display of the one or more displays to display
a content feed corresponding to the selected event.

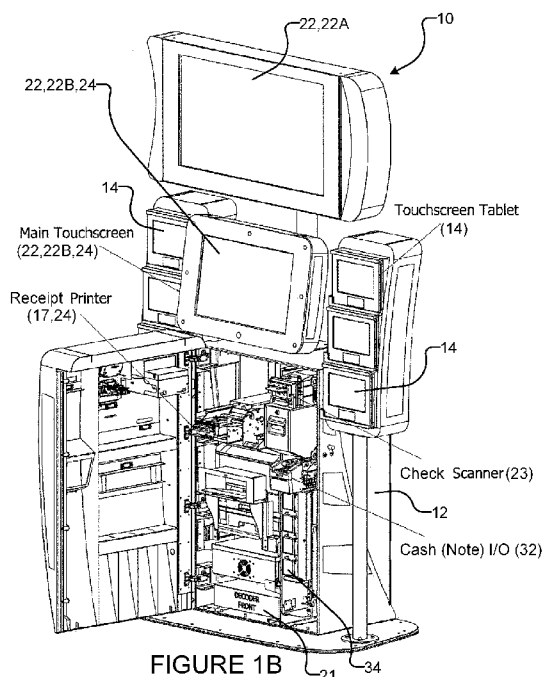


FIGURE 1B



MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, **Published:**
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, — *with international search report (Art. 21(3))*
GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *of inventorship (Rule 4.17(iv))*

ENTERTAINMENT APPARATUS, SYSTEMS AND METHODS INVOLVING PARI-MUTUEL WAGERING

Technical Field

[0001] This application relates to pari-mutuel wagering. Particular embodiments provide apparatus, systems and methods for promoting and/or placing pari-mutuel wagers.

Background

[0002] A common form of gambling involves a so-called “pari-mutuel” system, where: all wagers of a particular type are placed together in a pool; taxes and a “house-take” (or commission) are removed from the pool; and the remaining amount of the pool is then paid out to the winners. Together, the house take and taxes (and any other amounts removed from the pool prior to payout) may be referred to as the “takeout”. Unlike fixed-odds wagering (where the odds of a wager are known in advance), pari-mutuel wagering involves calculating the payoff odds after the pool is closed (and after removal of the takeout). Pari-mutuel wagering is common in horse racing and greyhound racing, although it is not limited to these types of wagering.

[0003] In a simplified example of pari-mutuel wagering, consider a horse race involving eight horses where the only type of wager is a win wager – i.e. a wager on the horse that will place first in the race. Such a race has eight possible outcomes – i.e. each of the eight horses could win. Assume that at the time betting closes (e.g. right before the race), the wagers on the various horses to win were as shown in Table 1 below.

Horse to Win	Wager Amounts
1	\$500
2	\$150
3	\$200
4	\$125
5	\$275
6	\$200
7	\$350
8	\$150

Table 1 – Example Pari-mutuel Horse Race

[0004] In the Table 1 example, the total pool of money (often referred to as the “handle”) is the sum of the amounts in the second column – i.e. \$1950. Assuming that the takeout rate is 20%, the pool will be reduced by $.20 \times \$1950 = \$390$, leaving total available winnings of

$\$1950 - \$390 = \$1560$. Now assume that the winning horse was horse number 6. So the remaining pool is distributed to those who wagered on horse number 6 in the amount of $\$1560 / \$200 \approx \$7.80$ for every \$1 wagered. Since this \$7.80 payout includes the original \$1 wagered, the actual profit from a \$1 wager on horse number 6 is \$6.80 and the odds of a bet placed on horse number 6 are 6.8 to 1 (fractional odds) or \$7.80 (decimal odds).

[0005] Based on the above example, it will be appreciated that the exact odds of a particular wager are subject to change while wagers are still being accepted on the race. However, the odds at any particular instant in time may be calculated. These instantaneous odds are only approximate, because in the time required for calculation, additional wagers may be placed, thereby changing the odds. For example, in the case of the Table 1 example at the instant that the Table 1 wagers are accurate, the approximate fractional odds for the Table 1 event may be calculated as shown in Table 2.

Horse to Win	Payout Odds (Fractional)
1	\$2.12/1
2	\$9.4/1
3	\$6.8/1
4	\$11.5/1
5	\$4.7/1
6	\$6.8/1
7	\$3.6/1
8	\$9.4/1

Table 1 – Example Instantaneous Odds for Table 1 Race

[0006] The ability to calculate approximate instantaneous odds on horse races and greyhound races led to the development of devices known as “totalizators” or, more commonly, “totes”. In their most basic form, totes can calculate the approximate instantaneous payoff odds of a race. The development of totes has led to a corresponding proliferation of “off-track” betting (also known as “OTB”) facilities where wagers can be placed on race events from locations away from the racing track. Modern totes comprise computers running specialized software (e.g. Autotote™ or the like). Modern totes are networked to be able to communicate with one another from distributed OTB locations and to thereby obtain approximate instantaneous odds which account for wagers placed from other OTB locations. Modern totes can also accept wagers and issue corresponding tickets which evidence the wagers placed. Typically, a bettor would

communicate their wager to a teller at an OTB, who would take the bettors money, enter the wager into the tote and issue a corresponding ticket.

[0007] Current OTB facilities have a number of drawbacks which can make it undesirable for bettors to place wagers at an OTB. By way of non-limiting example: OTBs receive satellite video feeds from various racetracks, but have a limited number of video screens, which can create a drawback for bettors when they cannot locate a display screen which is showing a race on which they wagered or when races from various tracks are temporally overlapping; typically, at an OTB, sound must be turned off on all of the displays, because there is no correspondence between bettors and displays and there are many displays in which various users may or may not be interested; odds received by satellite and displayed on video screens can be delayed by several seconds over instantaneous odds; a bettor may have to leave their seat to interact with a teller each time that they make a bet or to view a race on a display screen that may be at another location in the facility; wagers are generally placed anonymously which can preclude the ability to customize the entertainment experience and/or others. The payback to the OTB operators comes from the takeout associated with wagers placed at their OTB facilities. Consequently, if bettors are not betting at an OTB facility, the income of the OTB operator will be correspondingly reduced.

[0008] There is a general desire to improve the OTB wagering experience for bettors, for OTB operators and/or for other parties involved in pari-mutuel gambling events, such as horse races, greyhound races and/or the like.

[0009] The foregoing examples of the related art and limitations related thereto are intended to be illustrative and not exclusive. Other limitations of the related art will become apparent to those of skill in the art upon a reading of the specification and a study of the drawings.

Summary

[0010] The following embodiments and aspects thereof are described and illustrated in conjunction with systems, tools and methods which are meant to be exemplary and illustrative, not limiting in scope. In various embodiments, one or more of the above-described problems have been reduced or eliminated, while other embodiments are directed to other improvements.

[0011] Aspects of the invention provide systems, methods and/or apparatus for wagering at an “off track” betting (OTB) facility which provide an entertainment experience that is customized

for a particular user or group of users.

[0012] In addition to the exemplary aspects and embodiments described above, further aspects and embodiments will become apparent by reference to the drawings and by study of the following detailed descriptions.

Brief Description of the Drawings

[0013] Exemplary embodiments are illustrated in referenced figures of the drawings. It is intended that the embodiments and figures disclosed herein are to be considered illustrative rather than restrictive.

[0014] Figures 1A and 1B (collectively, Figure 1) are isometric views of a wagering apparatus 10 according to a particular embodiment with its cabinet door closed (Figure 1A) and its cabinet door open (Figure 1B).

[0015] Figure 2 is a schematic view of a number of the functional components of the Figure 1 apparatus.

[0016] Figure 3 is a schematic illustration of an entertainment system according to a particular embodiment which incorporates the Figure 1 apparatus.

[0017] Figure 4 is a schematic illustration of an account system which may be used in connection with the Figure 1 apparatus and the Figure 3 system.

Description

[0018] Throughout the following description specific details are set forth in order to provide a more thorough understanding to persons skilled in the art. However, well known elements may not have been shown or described in detail to avoid unnecessarily obscuring the disclosure. Accordingly, the description and drawings are to be regarded in an illustrative, rather than a restrictive, sense.

[0019] Figure 1 is an isometric view of a wagering apparatus 10 according to a particular embodiment. Figure 2 is a schematic view showing the functional components of wagering apparatus 10. Wagering apparatus 10 comprises a main wagering apparatus 12 and, optionally, one or more remote interface units 14. Wagering apparatus 12 is controlled by a controller 16. Controller 16 may comprise any suitable controller, such as, for example, a suitably configured computer, microprocessor, microcontroller, field-programmable gate array (FPGA), other type of

programmable logic device, pluralities of the foregoing, combinations of the foregoing, and/or the like. Controller 16 may have access to software instructions 20 which may be stored in computer-readable memory 18 accessible to controller 16 and/or in computer-readable memory (not shown) that is integral to controller 16. Controller 16 may be configured to read and execute software instructions 20 and, when executed by controller 16, such software 20 may cause controller 16 to implement one or more of the methods described herein.

[0020] Controller 16 may interact with and control a number of the other functional components of wagering apparatus 12. More particularly, controller 16 may control a display 22 and other user interface hardware 24 for interacting with user(s)/bettor(s). Display 22 and/or user interface hardware 24 may be used (by controller 16) to implement a graphical user interface (GUI). By way of non-limiting example, display 22 may comprise a video display which may optionally have “touch screen” functionality for accepting user input (e.g. by tapping a screen of display 22 and/or using other gestures where a user contacts the screen with their body, with a suitably configured stylus and/or the like). In the Figure 1 embodiment, display 22 incorporates a two-part display 22 which comprises a large-screen display 22A and a touch-screen display 22B. Because of its touch-screen capability, touch-screen display 22B also provides part of user interface hardware 24. By way of non-limiting example, other user interface hardware 24 may comprise a keypad, a keyboard, a selector device (e.g. a mouse, trackpad or similar pointing device) and/or the like. In the Figure 1 embodiment, user interface hardware 24 comprises touch-screen display 22B, camera 13, keypad 15, receipt printer 17 and booklet (e.g. race information) printer 19. In some embodiments, user interface hardware 24 may comprise fewer components, additional components or other components suitable for interacting with a user in the manner described herein. In addition to its functionality for implementing the GUI, display 22 (e.g. one or both of large-screen display 22A and touch-screen display 22B) may also be used to display satellite feeds (e.g. of horse race events or the like) and/or signals which may be received from network 44 via wide area network (WAN) interface 36. Such video signals may be decoded (e.g. by decoder 21) for display on display 22. In some embodiments, main apparatus 12 comprises a plurality of large-screen displays 22A. In some embodiments, main apparatus 12 is in direct or indirect communication with other external displays (not shown) for rendering video content.

[0021] In the illustrated embodiment, wagering apparatus 12 comprises LAN interface 26 for communication with a local area network (e.g. a local network comprising main apparatus 12,

remote interface units 14 and/or other suitable devices) and a wide area network (WAN) interface 36 for interacting with a WAN network 44, such as the internet or the like. More particularly and as explained in more detail below, controller 16 can communicate (via WAN interface 36) through the internet 44 to place wagers on various races (or other pari-mutuel wagering events), to connect to live video feeds of various races, to interact with stored value accounts of various users and/or the like. In some embodiments, wagering apparatus 10 and/or the venue in which main wagering apparatus 12 is deployed may comprise a WAN interface 36 (e.g. a suitable router and internet access point) that is not provided as a part of main wagering apparatus 12, but rather is separate from main wagering apparatus 12. In such embodiments, main wagering apparatus 12 may communicate with WAN network 44 via LAN interface 26 and the external WAN interface 36.

[0022] Wagering apparatus 12 may also comprise other hardware which may be controlled by controller 16 for interacting with user(s). In the illustrated embodiment, such user-interaction hardware comprises a card coder/printer 28, a card reader 30, a cash input/output 32, an identification verification unit 46 and a check scanner 23. In some embodiments, wagering apparatus 12 may comprise additional or alternative user-interaction hardware. In some embodiments, wagering apparatus 12 may not contain all of card coder/printer 28, card reader 30, cash input/output 32, identification verification unit 46 and check scanner 23.

[0023] Card coder/printer 28 may be used to encode information on user-ID cards. Examples of information that can be encoded onto a card by card coder/printer 28 include a user account ID, which enables a user to create, access and otherwise interact with a stored value account. Such stored value accounts may comprise online stored value accounts provided by third party services and may be accessed via WAN interface 36 and network 44 (e.g. the internet). Such stored value accounts enable secure money transfers (e.g. electronic funds transfers (EFT), automated clearing house (ACH) transfers and/or the like) via network 44. In some embodiments, a user-ID card is not necessary for a user to interact with their stored value account via wagering apparatus 10. For example, a user may manually enter a user ID and password using user interface hardware 24 to interact with their stored value account via wagering apparatus 10. In some embodiments, a user may additionally or alternatively enter a user ID and password (or other suitable login criteria) using a remote interface unit 14 (described in more detail below). Wagering apparatus 10 (under the control of controller 16) is configured

to accept wagers by withdrawing money from stored value accounts accessed by users via WAN interface 36 and network 44. In some embodiments, card coder/printer 28 could additionally or alternatively be used to encode an indication of the amount of stored value in an account associated with a corresponding card, such that a user's card may act in a manner similar to stored value card or credit card. In some embodiments, card coder/printer 28 may additionally be able to read information that it (or other similar card encoder/printers) have encoded onto users' cards.

[0024] Cash input/output 32 may be used to accept cash from user(s) as input and to output cash to user(s) as output. For example, cash received via cash input 32 may be deposited (via WAN interface 36 and network 44) into a user's online stored value account and subsequently used for wagering. Additionally or alternatively, cash received via cash input 32 may be directly used for wagering. Cash received into apparatus 12 via cash input/output 32 can be provided to cash recycler 34. Cash recycler 34 may scan received cash to determine the denominations of received notes and (optionally) their serial numbers. Cash recycler 34 may also sort the various different note denominations for storage into corresponding receptacles. If a user wins, their winnings may be deposited (via WAN interface 36 and network 44) into their online stored value account. If the user chooses to receive cash winnings, then the user may make this indication known to apparatus 10 (e.g. via user interface hardware 24) and controller 16 may cause a withdrawal from the user's online stored value account and cause cash to be output from apparatus 10 (i.e. from cash recycler 34) via cash input/output 32.

[0025] Card reader 30 may be capable of reading credit cards, bank cards and/or the like and, with the possible assistance of controller 16, conducting transactions involving such cards (e.g. via WAN interface 36 and network 44). For example, card reader 30 may be able to withdraw an amount from a user's credit/debit card and to deposit a corresponding amount into a user's stored value account. Similarly, in some embodiments, card reader 30 may be able to withdraw an amount from a user's stored value account and to deposit a corresponding amount onto a user's credit/debit card. In some embodiments, card reader 30 also functions to read the cards encoded by card encoder/printer 28. In some embodiments, card encoder/printer 28, check scanner 23 and/or cash input/output 32 may also function as a card reader 30.

[0026] In some embodiments (e.g. where required in a particular jurisdiction or otherwise desirable), identification verifier 46 can be used to verify the identity of a user. By way of non-

limiting example, identification verifier 46 may scan a piece of a user's identification and may use the scanned image to verify the user's age. In some embodiments, identification verifier 46 can include components for verifying the legitimacy of identification material (*e.g.* a piece of identification, such as a driver's license). For example, identification verifier 46 can include optical components (and suitable hardware and software configuration) for determining the type of plastic or paper used in a piece of identification and/or for locating authentication indicia to verify that the piece of identification is legitimate. In some embodiments, identification verifier 46 may comprise a camera 13, which may record an image of the user's face. This image may be saved in association with the user's account (*e.g.* for security procedures, auditing records and/or the like) and may be used as part of the identification verification procedure (*e.g.* using suitable facial recognition software and/or the like).

[0027] In the illustrated embodiment, apparatus 10 also includes an optional check scanner 23. Check scanner 23 may permit apparatus 10 to receive payment in the form of checks and may facilitate so-called "daylight loans" or the like where third party checks made out to a user may be received as input funds. Check scanner 23 may include suitable security and/or verification components for verifying the legitimacy of received checks.

[0028] In the illustrated embodiment, apparatus 10 comprises additional lights 25 which may be used to attract potential users to apparatus 10. To attract potential users, apparatus 10 may also play back audio and/or video associated with events (*e.g.* horse races) on which pari-mutuel wagers may be placed. Such video/audio may be shown/played back on display 22, on remote interface units 14, and/or on other displays or devices (*e.g.* on television screens in a bar). For example, apparatus 10 may show video and/or playback audio with shouting jockeys, pounding hooves, cheering fans and the like

[0029] Apparatus 10 may be installed in a traditional OTB venue, such as a casino and/or the like, for example. Apparatus 10 may additionally or alternatively be installed in a social or entertainment venue (such as a bar, restaurant, or the like), and/or any other suitable venue, including those which have social and/or entertainment facilities other than merely wagering. For the remainder of this description, it will be assumed, without loss of generality, that wagering apparatus 10 is located in a bar.

[0030] In operation, a patron of the bar may decide that they could have some fun if they placed a wager on a horse race (or other pari-mutuel event) via wagering apparatus 10. The first time

that a user without an existing stored value account interacts with apparatus 10, the user may interact with apparatus 10 (via user interface hardware 24) to create a stored value account. Creation of the stored value account may optionally involve the user presenting their identification to be verified by identification verifier 46. Alternatively, or in addition, the user may create a stored value account online prior to (or while) interacting with apparatus 10. Once the account is created, card coder/printer 28 may create a user account ID card for the user which may be output to the user at that time. If the user created an account online, they may receive a user account ID card when they first log in to apparatus 10. The user can then fund the account using a credit/debit card (or the like) inserted into card reader 30, cash inserted into cash input/output 32, a check inserted into check scanner 23, online fund transfer, and/or the like. In some embodiments, users can fund their accounts with the human employees of the venue in which apparatus 10 is located, who may use a different system (not shown) to record the funding of the user's account (e.g. to increase the available balance of the user's stored value account). Once the account is created and funded, the user is in a position to place a wager.

[0031] It will be appreciated that creating a stored value account may only be required the first time that a user who has not previously created an account interacts with apparatus 10. A user may create a stored value account on one apparatus 10 and then place wagers using a different apparatus 10 and/or a remote interface unit 14 which may be at the same venue or at a different venue. The second and subsequent time(s) that a user interacts with apparatus 10 (or a similar apparatus 10 or a remote interface unit 14), the user may be able to use their user ID card (via card reader 30 or card coder/printer 28) to login to their account or may otherwise login to their account via user interface hardware 24 (or user interface 40 of remote interface unit 14), for example by providing a username and password. Provided that the account is funded, the user will be in a position to place a wager after logging in to their existing account. Depending on any local regulatory requirements, in some embodiments, a user may be required to verify their identification (via identification verifier 46) each time that they interact with apparatus 10.

[0032] In some embodiments, it may be desirable to provide multiple levels of stored value accounts. For example, some credit/debit card companies (or similar financial institutions) do not permit use of their cards directly for wagering. In such cases, a user may create a first "gift card" stored value account which can be funded as discussed above (but which is not used directly for wagering) and then a second "wagering" stored value account which can be funded indirectly

with funds from the first gift card stored value account (and which can be used directly for wagering).

[0033] The GUI of apparatus 12 may provide to the user several events (*e.g.* various horse races) on which wagers can be placed, and may enable and optionally guide the user to select the particulars of a wager on one or more of those events. In the case of a horse race, greyhound race or the like, such wager particulars, may include without limitation: the track at which the race is being run, the particular race at the track, the amount of the wager and the type of the wager. As is well known to those familiar with horse racing, there are a large variety of bet types. Such bet types include: single race bets, such as (without limitation): win, place, show, exacta, trifecta, superfecta, duet and/or the like; and multi-race bets, such as (without limitation): double, triple, quadrella, sweep and/or the like. Each bet type corresponds to a certain class of outcomes of the event being wagered on – *e.g.*, a win bet is a wager that the outcome of the race will have a certain race participant (*e.g.* a horse) in first place. The GUI of apparatus 12 may display information (*e.g.* textually, audibly and/or graphically) about various races and/or wagers, handicapping strategies and/or the like. By way of non-limiting example, such information could include: constantly increasing pool sizes, instantaneous approximate odds, risk levels against payout potential, reports indicating the user's handicapping rates of success, statistical tools and tips to help the user become a better handicapper, information that might be useful to help a user identify handicapping opportunities that meet their user-specific handicapping criteria and/or the like.

[0034] When the user submits their wager, the amount of the wager is withdrawn from their stored value account and recorded by apparatus 10 (*e.g.* by controller 16). These wagered amounts may then become the property of the “house” – *e.g.* the proprietor of wagering apparatus 10, the proprietor of the venue in which apparatus 10 is located and/or the like. To the extent that the house does not administer the stored value account service, there may be a need for reconciliation between the accounts of the house and the stored value account service so that the stored value account service can pay the wagered amounts to the house. Additionally or alternatively, the house may maintain an account with the stored value account service into which wagered amounts may be credited. This reconciliation can happen in real time (*e.g.* as soon as the wagered amounts are debited from the user's stored value account) or at discrete times (*e.g.* daily, weekly or monthly). From time to time (*e.g.* daily, weekly or monthly) a pari-

mutuel wagering oversight body (e.g. CHRIMS Inc. and/or the like) may request payment of these wagered amounts from the house and these wagered amounts will be transferred from the house to the oversight body. Such transfers may be effected by EFT, ACH transfer and/or the like. In some embodiments, such transfers from the house to the oversight body may happen in real time. From time to time (e.g. daily, weekly or monthly), the oversight body may then remit these wagered funds to the various stakeholders (e.g. race tracks, government bodies, content providers, winners and/or the like) in the form of takeout or winnings. In some embodiments, such transfers from the oversight body to the various stakeholders may happen in real time.

[0035] When the user submits their wager, controller 16 may access a content feed (e.g. a video and/or audio feed) to display the corresponding race(s) on display 22. The content feed may be accessible via satellite, via network 44 and/or otherwise. In some embodiments, wagering apparatus 10 can be in communication with one or more other displays (not shown) in the bar in which apparatus 10 is located. In such embodiments, controller 16 may select one or more of such other display(s) and cause the video feed of the race(s) on which the user has wagered to be displayed on the selected display(s). Controller 16 may be configured to cause display 22 (or some other aspect of its user interface) to direct the user to one of one or more other displays that are displaying or will display the race(s) on which the user has wagered. Additionally or alternatively, controller 16 may allow a user to select (via user interface hardware 24) one or more available displays on which to display such race(s). For example, controller 16 may direct a television near the user's table to display a race on which the user has wagered. Still other techniques may be used to select display(s) on which the race(s) that a user has wagered may be displayed.

[0036] If the race is run and the user loses, then no funds are deposited in the user's stored value account in respect of the lost wager. If the user wins, controller 16 records the user's winnings and makes the winnings available in the user's stored value account. Such winnings may be paid by the house. To the extent that the house does not administer the user's stored value account service, there may be a need for reconciliation between the accounts of the house and the stored value account service, so that the house can pay the winnings to the stored value account service. Additionally or alternatively, the house may maintain an account with the stored value account service which can be debited to pay the winnings to the stored value account service. This reconciliation can happen in real time (e.g. as soon as the winnings are placed into the user's

stored value account) or at discrete times (e.g. daily, weekly or monthly). As mentioned above, from time to time (e.g. daily, weekly or monthly), an oversight body may transfer to the house its share of the takeout based on wagers placed through the house together with any winnings on wagers placed through the house.

[0037] If a user wants to cash out, they can withdraw the funds from their stored value account. Otherwise, some or all of the funds can be left in the account for subsequent wagering. Cash may be withdrawn, for example, from cash input/output 32 and/or from the house (e.g. by receiving cash from an employee who then debits the user's stored value account). Withdrawal of funds may also, or alternatively, occur via online fund transfer, deposit onto a debit/credit card, issuance of a check, or by other means.

[0038] In the illustrated embodiment, wagering apparatus 10 comprises one or more optional remote interface units 14. Remote interface units 14 provide some of the functionality of main apparatus 12 and permit users to interact with wagering apparatus 10 to place wagers from remote locations (e.g. from their tables at a bar). Remote interface units 14 may be implemented, for example, by suitably configured tablet computing devices, suitably configured touch screen computing devices, suitably configured mobile phones and/or the like. In the illustrated embodiment, remote interface units 14 are provided by the house. This is not necessary, however. In some embodiments, remote interface units 14 may be embodied by the user's own device – e.g. suitably configured tablet computing devices, mobile phones and/or the like which may run suitable software application(s) and/or access suitable website(s). Each remote interface unit 14 comprises its own controller 38. Controller 38 may comprise any suitable controller, such as, for example, a suitably configured computer, microprocessor, microcontroller, field-programmable gate array (FPGA), other type of programmable logic device, pluralities of the foregoing, combinations of the foregoing, and/or the like. Controller 38 may have access to software instructions (not shown) which may be stored in computer-readable memory (not shown) accessible to, and/or integral to, controller 38. In some embodiments, controller 38 may have access to software instructions 20 stored by main apparatus 12. Controller 38 may be configured to read and execute such software instructions to thereby implement one or more of the methods described herein.

[0039] Remote interface unit 14 comprises a user interface 40 which may include a display and suitable user input devices (e.g. a touch screen display, a keyboard, a pointing device and/or the

like) to provide a graphical user interface (GUI). The GUI and display of remote interface unit 14 may be similar to the GUI and display 22 of main apparatus 12 and may provide the same or similar functionality. In the illustrated embodiment, remote interface unit 14 comprises a local area network (LAN) interface 42 for communication with main apparatus 12 (via a corresponding LAN interface 26 in main apparatus 12) and/or with other remote interface units 14 (e.g. to send messages between users of remote interface units 14). Remote interface unit 14 may communicate with WAN 44 (e.g. the internet) via the WAN interface 36 of apparatus 10. In some embodiments, remote interface unit 14 may additionally or alternatively comprise a WAN interface of its own (not shown) for communication to WAN 44 (e.g. the internet). A user can use remote interface unit 14 to place wagers and/or to perform other functions, such as (for example) streaming video of a race on which the user has wagered, performing account management, transferring funds, and so on. Such wagers may be communicated from remote interface unit 14 to main apparatus 12 through LAN interfaces 42, 26, whereafter it can be treated by main apparatus 12 like any other wager described herein, or, if remote interface unit 14 has its own WAN interface such wager may be placed directly via WAN 44 by remote interface unit 14. As discussed above, in some embodiments WAN interface 36 is not a part of main apparatus 12, but is instead an external WAN interface 36 (e.g. a suitable router and wireless access point). In such embodiments, remote interface units 14 can interact with WAN 44 (independently of main apparatus 12) to place wagers and/or to provide other functionality similar to that of apparatus 12 described herein. Video feeds (e.g. satellite or internet) procured by main apparatus 12 can also be communicated to remote interface unit 14 via LAN interfaces 26, 42 or may be procured directly by remote interface unit 14 from WAN 44.

[0040] A user may be able to login to their stored value accounts via remote interface unit 14 using user interface 40. In some embodiments, a user ID card or identification verification may be required for a user to login; in such embodiments, a user may need to login at main apparatus 12. A user may login to main apparatus 12 to “sign out” (e.g. acquire temporary use or possession of) a remote interface unit 14. In some embodiments, users can “sign out” a remote interface unit 14 from human employees of the venue in which apparatus 10 is located. Similarly, a user may (but need not necessarily) interact with main apparatus 12 to fund their account via cash input/output 32 or card reader 30 before signing out and using remote interface unit 14. In some embodiments, users can fund their accounts directly using remote interface units

14 and/or with the human employees of the venue in which apparatus 10 is located, who may use a different system (not shown) to record the funding of the user's account. A user may login to apparatus 10 at main apparatus 12 prior to signing out a remote interface unit 14 and/or on remote interface unit 14 after unit 14 is signed out. Once signed out, a user may interact with remote interface unit 14 which may provide functionality similar to that of main apparatus 12 described herein.

[0041] As shown in Figure 1, prior to being signed out, remote interface units 14 may be mounted to main apparatus 12. Remote interface units 14 may be locked to main apparatus 12 by suitable electrically controlled locking mechanisms (not shown), such as solenoid-actuated locks and/or the like. Controller 16 may cause a remote interface unit 14 to be unlocked when it is properly signed out by a user. A deposit may be collected from (or held in) the user's account to encourage the user to return remote interface unit 14. In some embodiments, remote interface units 14 may comprise proximity sensors, GPS sensors, RFID tags and/or the like which may activate alarms if the remote interface units 14 is moved too far from main apparatus 12.

[0042] In some embodiments, remote interface units 14 may be rented (e.g. by the hour or by the minute). In such embodiments, main apparatus 12 may be configured to detect (e.g. with suitable detectors or the like and/or suitable interaction via LAN interfaces 26, 42) when a remote interface unit 14 is removed from its mount on apparatus 12 and when the remote interface unit 14 is returned to its mount. The user's stored value account may then be debited according to the amount of time that remote interface unit 14 was away from its mount. The user's deposit may also be returned (or freed) when remote interface unit is detected as being returned. In some embodiments, remote interface units 14 may be "docked" to suitable mounts at locations away from main apparatus 12 – e.g. at mounts located on tables, on bar tops, on the floor in front of a large screen display and/or the like. In some such embodiments, remote interface units 14 may be activated when they are docked to such mounts and de-activated otherwise.

[0043] In some embodiments, main apparatus 12 is not necessary and apparatus 10 (and corresponding systems and methods) may be implemented using only remote interface units 14. In some such embodiments, remote interface units 14 may be provided with some of the hardware and/or functionality of main apparatus 12. By way of non-limiting example, remote interface units 14 may be provided with card readers similar to card reader 30 described above to permit a user to fund their account using remote interface unit 14. In some embodiments that

comprise only remote interface units 14, some functionalities of main apparatus 12 that are not provided directly by remote interface units 14 may be provided in part by other systems and/or by employees of the venue in which apparatus 10 is located. Employees may use other systems (not shown) to implement these functionalities. By way of non-limiting example, a user may fund their account by providing cash (or their credit/debit card) to an employee who may use an external system to verify the user's credit/debit card and to record the deposit into the user's account. In some embodiments which comprise only remote interface units 14, some of the hardware of main apparatus 12 may be separately provided and shared by remote interface units 14. By way of non-limiting example, as discussed above, WAN interface 36 may be separate from main apparatus 12 and may be shared by remote interface units 14. As another non-limiting example, ID verifier 46, card reader 30, card coder/printer 28 and/or the like could be provided in a stand-alone unit separate from main apparatus 12 and could be used in an embodiment having only remote interface units 14.

[0044] In some embodiments, apparatus 10 may provide part of a comprehensive entertainment system. Figure 3 is a schematic illustration of an entertainment system 100 according to a particular embodiment that incorporates apparatus 10. Entertainment system 100 of the illustrated embodiment is provided in a venue 102, which could be any suitable venue, such as a more traditional OTB facility, a bar, a casino, an airport waiting area and/or the like. In the example illustration of Figure 3, venue 102 includes a bar 106 and a number of tables 108. Entertainment system 100 comprises apparatus 10 (including main apparatus 12 and a number of remote interface units 14), a number of displays (e.g. televisions) 104, a venue interface 110, a remote server 112 which is accessible to apparatus 10 (both main apparatus 12 and remote interface units 14) via WAN 44. In the example illustration of Figure 3, remote interface unit #1 is being used by the patrons sitting at table #1 and remote interface unit #2 is being used by the patrons sitting at table #2. Remote interface units #3 and #4 are not being used and are attached to main apparatus 12.

[0045] Entertainment system 100 facilitates control of displays 104. More particularly, displays 104 can be advantageously controlled by main apparatus 12, remote interface units 14, venue interface 110 and/or remote server 112. Displays 104 may be provided with LAN interfaces, WAN interfaces or other communications interfaces (not expressly shown) for communicating with various networked devices (e.g. main apparatus 12, remote interface units 14, venue

interface 110 and/or remote server 112). Displays 104 may be equipped to display signals coming from satellite feeds, from WAN 44 (e.g. remote server 112) and/or other video sources. Displays 104 may be configured to identify themselves (e.g. by displaying TV #1, TV #2 ...) permanently, on startup and/or in response to interrogation from main apparatus 12, remote interface units 14, venue interface 110 and/or remote server 112.

[0046] In some embodiments, a user using main apparatus 12 and/or one of remote interface units 14 can cause a particular display 104 to display particular content – e.g. a race on which the user has wagered. For example, the user at table #2 is relatively close to TV #2 and TV #3. Consequently, the user at table #2 might want to see races on which they wagered at one of TV #2 or TV #3. System 100 may permit this user at table #2 to control TV #2 and/or TV #3, for example by using the remote interface unit #2 and/or by signing out a TV at main apparatus 12. In some embodiments, one or more of displays 104 and remote interface units 14 may comprise proximity sensors or the like for detecting which remote interface unit 14 is closest to which display 104. In such embodiments, system 100 may automatically select the race(s) corresponding to wagers placed on the closest pairs of displays 104 and remote interface units 14. For example, remote interface unit #1 is relatively close to TV#1 and remote interface unit #2 is relatively close to TV#2, so system 100 may automatically elect to display race(s) corresponding to the wagers place on remote interface #1 on TV#1 and the race(s) corresponding to the wagers placed on remote interface #2 on TV #2.

[0047] In some scenarios, multiple users may wish to see different races on the same display 104 at the same time (e.g. if there are more users than displays 104, if a particular display 104 is especially desirable, *etc.*). Apparatus 10 may resolve such conflicts by maintaining a schedule for each display 104, allowing users to schedule viewing times on a first-come-first-served basis. In some embodiments, such conflicts between users over control of a display 104 may be resolved based on one or more other criteria include, by way of non-limiting example: the users' relative frequency of use of remote interface units 14 or main apparatus 12 to make wagers and/or other purchases (*i.e.* the user's historical rate of use of apparatus 10 to make wagers), *e.g.* from venue 102, which may include one or both of frequency of wagers and/or purchases made in the user's current visit to venue 102 and frequency of wagers and/or purchases made over historical visits to venue 102 (*e.g.* over a configurable or predetermined historical temporal window); the users' relative amounts spent on wagering and/or making purchases (*e.g.* from venue 102) using remote

interface units 14 or main apparatus 12, which may include one or both of amounts spent in the user's current visit to venue 102 and amounts spent over historical visits to venue 102 and/or to other venues (e.g. over a configurable or predetermined historical temporal window); the relative frequency with which each user has made such purchases on the current visit and/or historical visits (this is one way to determine a historical spending rate); the relative frequency with which each user visits venue 102 (which may be taken into consideration in determining a historical spending rate); the users' relative winnings from wagers placed using remote interface units 14 or main apparatus 12, which may include one or both of amounts won in the user's current visit to venue 102 and amounts won over historical visits to venue 102 and/or to other venues; the relative amounts of the users' current wagers (*i.e.* on a race that is currently being broadcast or is about to be broadcast); and/or the like. Such criteria may be used, in some embodiments, to "rank" users, with higher-ranked users receiving preferential access to displays 104. Still other additional or alternative exemplary criteria for resolving such conflicts include: apparatus 10 may give preference to certain users on the basis of points (or the like) in loyalty or reward system, whether or not one or more of the users in conflict have signed out or otherwise possess streaming-capable remote interface units 14, the number of users who have selected a particular race, an attribute of the event (e.g. venue 102 may give preference to races at Irish tracks), and/or on other bases. Once a display 104 has been allocated to a particular user or group of users, apparatus 10 may allow the user(s) to control one or more settings of the display 104, and/or apparatus 10 may automatically direct the display 104 to the appropriate race with or without permitting additional control by the user(s).

[0048] Using main apparatus 12 and/or one of remote interface units 14, users may have the ability to control other settings of the displays 104, such as their volume, brightness, contrast etc. Using main apparatus 12 and/or one of remote interface units 14, users may also have the ability to send messages to a display 104 under their control, to other displays 104 in system 100 and/or to other ones of main apparatus 12 and remote interface units 14. In some embodiments, system 100 may permit such messaging using other LAN-enabled or WAN-enabled devices (not shown), such as a mobile telephone or the like. As discussed above, displays 104 may be configured to identify themselves (e.g. by displaying TV #1, TV #2 ...) in response to interrogation from main apparatus 12 and/or one of remote interface units 14, so that a user can be sure that they are controlling the correct one of displays 104.

[0049] In some embodiments, remote interface units 14 or main apparatus 12 which are controlling displays 104 can determine if a display loses a satellite or internet video signal (e.g. of an event that a user is viewing) and can switch from the lost signal to a backup signal (e.g. via satellite or internet). In some embodiments, this functionality may be provided in displays 104 themselves, whether or not they are under the control of one of remote interface units 14 or main apparatus 12.

[0050] In some embodiments, remote interface units 14 can determine where they are in venue 102 (at least relative to displays 104 in bar 102) and can offer the selection of particular displays 104 to control based on their proximity to such displays 104. For example, remote interface unit #2 is relatively close to TV#2 and TV #3 and may offer the users at table #2 the ability to control TV#2 and/or TV #3. Remote interface units 14 may comprise GPS receivers or the like which can enable remote interface units 14 to detect their location. Additionally or alternatively, remote interface units 14 may comprise suitable proximity sensors to detect which displays 104 are located within a proximity threshold (e.g. via RFID, Bluetooth™, and/or other means). In some embodiments, remote interface units 14 which can determine their location in venue 102 may provide a "moving map" functionality which shows the locations of the various displays 104 in venue 102.

[0051] Venue interface 110 may be provided with LAN interfaces, WAN interfaces or other communications interfaces (not expressly shown) for communicating with displays 104, remote interface units 14 and/or main apparatus 12. In some embodiments, the proprietor of venue 102 can use venue interface 110 to take control of the signals to any or all of displays 104 for a desired period of time and may lock out user-control of some or all displays 104 via remote interface units 14 or main apparatus 12. For example, the proprietor of venue 102 may want to switch a number of particular displays 104 (or all of displays 104) to watch a particular event (e.g. a particular high-profile race or playoff sporting event). The proprietor of venue 102 may want to control the maximum volume level of any or all of displays 104. Display(s) 104 for which user control is locked-out and control is assumed by the proprietor, and/or by some other administrator of apparatus 10, are said to be "reserved".

[0052] Venue interface 110 may also permit the proprietor of venue 102 to send out targeted messages to particular displays 104, to particular remote interface units 14 and/or to main apparatus 12. By way of non-limiting example, such targeted messages may contain text, sound,

graphics video, advertising, winning results, team results, other statistics and/or the like.

Messages may be sent to particular displays 104, particular remote interface units 14 and/or to main apparatus 12 based on user activity information. In one particular example, every 30 minutes for which a user has been interacting with a particular remote interface unit 14 or right after the user of a particular remote interface unit 14 wins a wager, venue interface 110 may send an advertisement for drinks (or any other goods/services offered by venue 102 or any other goods/services offered by third parties) to the remote interface unit 14 (or to a display 104 under the control of the remote interface unit 14) and may offer the user the ability to purchase the goods/services using remote interface unit 14 (e.g. with currency in their stored value account, with points in a loyalty program, by adding to a tab that the user is running with venue 102, and/or the like). The offer may comprise a limited time special offer. Central server 112 may be provided with similar ability to send out targeted messages to particular displays 104, particular remote interface units 14 and/or to main apparatus 12. Alternatively, or in addition, targeted messages may be broadcast to all displays 104 (and/or all remote interface units 14) in a venue, *e.g.* based on the behavior of one or more users in the venue. For example, if wagers on a particular track or in a particular region tend to be particularly popular at a given venue (*e.g.* wagers on tracks in Ireland), an advertisement for a resort or travel package in that region could be served to the displays 104 in the venue.

[0053] In the illustrated example embodiment, venue 102 includes one display 104 (TV #5) that is larger than the other displays 104 and may therefore be more desirable for viewing than the other displays 104. In some embodiments, the ability to control relatively more desirable display(s) 104 may be provided to one or more corresponding remote interface units 14 and/or to main apparatus 12. In the case of the illustrated Figure 3 example, the ability to control TV #5 may be provided to a corresponding one of remote interface units 14 and main apparatus 12. The selection of which one of remote interface units 14 and main apparatus 12 gets to control TV #5 may be based on one or more of: the corresponding users' relative frequency of use of remote interface units 14 or main apparatus 12 to make wagers and/or other purchases (e.g. from venue 102), which may include one or both of frequency of wagers and/or purchases made in the user's current visit to venue 102 and frequency of wagers and/or purchases made over historical visits to venue 102 (e.g. over a configurable or predetermined historical temporal window); the corresponding users' relative amounts spent on wagering and/or making purchases (e.g. from

venue 102) using remote interface units 14 or main apparatus 12, which may include one or both of amounts spent in the user's current visit to venue 102 and amounts spent over historical visits to venue 102 (e.g. over a configurable or predetermined historical temporal window); the corresponding users' relative winnings from wagers placed using remote interface units 14 or main apparatus 12; the relative amounts of the users' current wagers (*i.e.* on a race that is currently being broadcast or is about to be broadcast); and/or the like. Still other additional or alternative exemplary criteria for deciding which one of remote interface units 14 and main apparatus 12 get to control TV#5 include: apparatus 10 may give preference to certain users on the basis of points (or the like) in loyalty or reward system, whether or not one or more of the users in conflict have signed out or otherwise possess streaming-capable remote interface units 14, the number of users who have selected a particular race, and/or on other bases. The ability to control relatively more desirable sound systems (not shown) may be provided in a similar manner. In some embodiments, the ability to control relatively more desirable displays 104 and/or sound systems may be directly purchased or rented from venue 102 – *i.e.* if a particular user wants to display their races on TV#5, then the user may rent some time to control TV#5.

[0054] As discussed above, it may be desirable for apparatus 10 (and system 100) to make use of multiple levels of stored value accounts. Figure 4 is a schematic illustration of an account system 200 which may be used in connection with apparatus 10 and system 100. Account system 200 of the illustrated embodiment makes use of a "gift card" stored value account service 208 and a separate wagering stored value account service 213. User 202 may deposit cash, credit/debit card or check into wagering interface 204 (e.g. apparatus 10 described above) as shown by arrow 218. This deposit may be used to fund a user gift card stored value account 210 with gift card stored value account service 208, as shown by arrow 224. In the case where user 202 uses their credit/debit card to fund their user gift card stored value account 210 (e.g. through main apparatus 12, remote interface unit 14 and/or any other suitable network enabled device, such as a computer, a smart phone, a point of sale debit/credit card device and/or the like), gift card stored value account service 208 may then access the funds from the financial institution (not shown) of user 202. Similarly, in the case where user 202 uses a check to fund their user gift card stored value account 210 (e.g. through main apparatus 12), gift card stored value account service 208 may access corresponding funds from a check-cashing organization, which check-cashing organization may interface with user 202 via main apparatus 12.

[0055] In some cases, a user can fund their user gift card stored value account 210 using cash which may be received by main apparatus 12. Where cash is received by or withdrawn from main apparatus 12, the proprietor of venue 102 may physically open main apparatus 12 to remove the deposited cash and/or to supply additional cash from time to time. At suitable intervals (e.g. daily, weekly or monthly), which may correspond to the intervals at which cash is withdrawn from apparatus 12 by the proprietor of venue 102, gift card stored value account service 208 may access a corresponding amount of funds from merchant account 206. In some embodiments, users can fund their user gift card store value account 210 indirectly through the proprietor of venue 102. For example, user 202 may make a payment to the proprietor of venue 102 via cash or credit/debit card, in which case, the proprietor of venue 102 may access the funds from the financial institution (not shown) of user 202. The proprietor of venue 102 can then add the amount of this payment to the user's gift card stored value account 210 using a different mechanism (e.g. a suitable electronic network-enabled interface, such as a computer, a smart phone, a point of sale debit/credit card device and/or the like (not shown)). Gift card stored value account service 208 can then withdraw the corresponding amounts from merchant account 206, if necessary.

[0056] In some embodiments (for example, some embodiments wherein credit card providers' prohibitions on gambling purchases are being accounted for), gift card stored value account 210 is not used directly for wagering. However, user gift card stored value account 210 may be used to make purchases from one or more merchants (e.g. the proprietor of venue 102 and/or any other merchant) as shown by arrow 228. The illustrated example embodiment of Figure 4 shows only one merchant account 206, but it will be appreciated that system 200 may include two or more merchants, each of which may have their own account. When a user purchases goods or services (e.g. a beverage) from a merchant (e.g. the proprietor of venue 102) using their gift card stored value account 210, their gift card stored value account 210 is debited and the funds are transferred (e.g. by EFT, ACH transfer and/or the like) to merchant account 206 as shown at arrow 228. The goods and/or services may then be provided to user 202 as shown at arrow 226. In some embodiments, when a user purchases goods or services from a merchant, there may be a small payment (not shown) to gift card stored value account service 208. This payment may be a suitable fraction of the cost of the purchased goods and services and may be paid by the merchant (e.g. from merchant account 206) or by user 202 (e.g. from their gift card stored value

account 210).

[0057] If a user wants to make a wager, then the user causes a transfer of funds from their gift card account 210 to a user wagering stored value account 212 with wagering stored value account service 213 as shown at arrow 232. The user's gift card account 210 is debited and their wagering account 212 is credited (e.g. by EFT, ACH transfer and/or the like). When user 202 places a wager (as discussed above), the details of the wager are recorded by apparatus 10 and the wagered funds may become the property of the "house", as described above. This is shown by arrow 236, where funds are debited from user wagering account 212 and credited to house account 214 (e.g. by EFT, ACH transfer and/or the like). As discussed above, the transfer of funds from user wagering account 212 to house account 214 (shown by arrow 236) may occur in real time (e.g. as soon as the wagered amounts are recorded). In some embodiments, the transfer of funds out of user wagering account 212 may occur in real time (e.g. into an account (not shown) managed by wagering stored value account service 213) and may then be transferred from wagering stored value account service 213 to house account 214 at discrete times (e.g. daily, weekly or monthly).

[0058] From time to time (e.g. daily, weekly or monthly) a pari-mutuel wagering oversight body (e.g. CHRIMS Inc. and/or the like) 216 may request payment of these wagered amounts from the house and these wagered amounts will be transferred (e.g. by EFT, ACH transfer and/or the like) from house account 214 to the oversight body 216 as shown at arrow 240. From time to time (e.g. daily, weekly or monthly), oversight body 216 may then remit these wagered funds to the various stakeholders (e.g. race tracks, government bodies, content providers, winners and/or the like (not shown)) in the form of takeout or winnings. Figure 4 shows a payment from oversight body 216 to house account 214 at arrow 238. This transfer at arrow 238 (which may occur by EFT, ACH transfer and/or the like) includes the net takeout for the house based on wagers placed through house account 214 (e.g. wagers placed on apparatus 10 or via system 100) together with winnings on any such wagers.

[0059] If the race is run and user 202 loses, then nothing further happens to user wagering account 212 or user gift card account 210. However, if user 202 wins, this win is recorded and the funds are made available in user wagering account 212. In the illustrated embodiment of Figure 4, the house transfers funds (e.g. by EFT, ACH transfer and/or the like) from its account 214 to user wagering account 212 in real time as shown at arrow 234. This is not necessary,

however, and in some embodiments, wagering stored value service 213 may "front" the funds for user wagering account 212 and the transfer from house account 214 may be to wagering stored value service 213 generally and may occur at discrete times (e.g. daily, weekly or monthly). If user 202 wants, they can leave the funds in user wagering account 212 for placing further wagers. Alternatively, if user 202 wants to cash out or to make purchases of goods or services (other than wagers) from one or more merchants (e.g. the proprietor of venue 102), then user 202 may effect a transfer (e.g. by EFT, ACH transfer and/or the like) from their wagering account 212 to their gift card account 210 as shown by arrow 230. Then, if a user ultimately wants to cash out, they can debit their gift card account 210 (as shown notionally by arrow 222) and wagering device 204 (e.g. apparatus 10) will output cash to user 202 as shown at arrow 220. It is not necessary that user 202 cash out. A user may keep the funds in their gift card account 210 and/or their wagering account 212.

[0060] Just like user 202 can fund their gift card stored value account 210 through the proprietor of venue 202, in some cases, user 202 can cash out via the proprietor of venue 202. For example, user 202 can indicate to the proprietor of venue 102 that they would like to cash out. The proprietor of venue 102 can, for example, pay user 202 cash or deposit appropriate funds onto the user's credit/debit card. The proprietor of venue 102 can then deduct the amount of this payment from the user's gift card stored value account 210 using a different mechanism (e.g. a suitable electronic network-enabled interface, such as a computer, a smart phone, a point of sale debit/credit card device and/or the like (not shown)). Gift card stored value account service 208 can then credit the corresponding amounts to merchant account 206, if necessary.

[0061] Using stored value accounts (e.g. gift card account 210 and wagering account 212 or any other stored value accounts) may be effected by apparatus 10 using its card coder/printer 28 (see Figure 2). Card coder/printer 28 may issue ID cards to users as discussed above, which will allow users to access their stored value accounts. Additionally, card coder/printer may permit users to take their cashout (arrow 220 of Figure 4) in the form of stored value gift cards. Such stored value gift cards may be provided with custom messages on the cards.

[0062] As discussed above, the instantaneous odds of a pari-mutuel wager can change over time. In particular embodiments, system 100 may permit a user to configure their wagering preferences to automatically place or cancel (or increase or decrease) wagers based on the changing odds (e.g. the odds changing from below an odds-based threshold to above the

threshold or from above an odds-based threshold to below the threshold). For example, system 100 may permit a user to configure a wager to be automatically placed or withdrawn (or increased or decreased) by way of a limit-odds wager – i.e. where the wager is automatically placed or withdrawn (or increased or decreased) provided that the odds are greater than or less than an odds-limit threshold, but their wager is automatically reversed if the odds transition past the odds-limit threshold. Similarly, system 100 may permit a user to configure a wager to be automatically placed or withdrawn (or increased or decreased) based on a stop-odds wager – i.e. where the wager is automatically placed or withdrawn (or increased or decreased) if the odds transition past an odds-stop threshold. Similarly, system 100 may permit a user to configure a wager to be automatically placed or withdrawn based on a stop-limit-odds wager. Such a stop-limit-odds wager involves an odds-stop threshold and an odds-limit threshold. Such a stop-limit-odds wager may take a number of forms. For example, a wager may be automatically placed if the odds transition past an odds-stop threshold and then automatically withdrawn if the odds transition past an odds-limit threshold. As another example, a wager may be automatically withdrawn if the odds transition past an odds-stop threshold and then automatically re-placed if the odds transition past an odds-limit threshold. As still another example, a wager may be automatically placed when the odds transition past an odds-stop threshold and then automatically increased or decreased if the odds transition past an odds-limit threshold. Automatic wagering involving such odds-based thresholds may be combined with other forms of handicapping.

[0063] In embodiments where handicapping strategies are user configurable or where any other parameters (e.g. automatic placement or withdrawal of wagers based odds-stop thresholds or odds-stop-limit thresholds) described herein are user-configurable, then a particular user's preferences may be recorded by system 100, so that they do not have to be re-entered for each wager.

[0064] Certain implementations of the invention comprise computer processors which execute software instructions which cause the processors to perform one or more methods of the invention. For example, the methods described herein may be implemented by one or more processors which execute software instructions which cause the processor to perform these methods. Such software instructions may be retrieved from a program memory accessible to the processors. The invention may also be provided in the form of a program product. The program product may comprise any medium which carries a set of computer-readable instructions which,

when executed by a data processor, cause the data processor to execute a method of the invention. Program products according to the invention may be in any of a wide variety of forms. The program product may comprise, for example, physical media such as magnetic data storage media including floppy diskettes, hard disk drives, optical data storage media including CD ROMs, DVDs, electronic data storage media including ROMs, flash RAM, or the like. The instructions may be present on the program product in encrypted and/or compressed formats.

[0065] While a number of exemplary aspects and embodiments are discussed herein, those of skill in the art will recognize certain modifications, permutations, additions and sub-combinations thereof. For example:

- The above-discussed embodiments primarily describe horse racing, which is merely an example of an event where a pari-mutuel style wager may be placed on an outcome of the event. It will be appreciated that the above-described methods, systems and apparatus could be similarly applied to dog racing or other forms of racing where pari-mutuel wagering is performed or, more generally, to any type of event on which a pari-mutuel wager can be placed on an outcome of the event. By way of non-limiting example, the methods, systems and apparatus described herein could be used for wagering in connection with motor car races, outcomes associated with sporting games or events (such as, by way of non-limiting example, who will score the next goal or touchdown, whether a particular team will score more than X points in a game, whether a particular team will concede more than Y turnovers in a game and/or the like), the outcomes of democratic elections, the results of a company's quarterly earnings release, and other binary outcomes determined by a third party event that the user normally has no influence over.
- When a user is interacting with apparatus 12, apparatus 12 may printout coupons, special offers and/or the like (e.g. via receipt printer 17 or booklet printer 19). Such coupons and special offers may be based on information that system 100 has about the particular user's behavior in a manner similar to the messages output to remote device interfaces 14 and/or to displays 104 discussed above.
- In some embodiments, apparatus 10 (including main apparatus 12 and/or remote device interfaces 14) and/or system 100 may be configured to inquire into (or predict) a user's approximate wagering loss limit and may take some action to help a user feel better. Such action(s) may include, by way of non-limiting example: loyalty reward bonus points, a

loyalty reward gift (e.g. a free drink), a positive message and/or the like.

[0066] While a number of exemplary aspects and embodiments have been discussed above, those of skill in the art will recognize certain modifications, permutations, additions and sub-combinations thereof. It is therefore intended that the following appended claims and claims hereafter introduced are interpreted to include all such modifications, permutations, additions and sub-combinations as are within their true spirit and scope.

WHAT IS CLAIMED IS:

1. A system for placing pari-mutuel wagers, the system comprising a processor in communication with a user interface and one or more displays, the processor configured to:
 - provide, to the user, an ability to place pari-mutuel wagers on one or more outcomes of each of a plurality of events, via the user interface;
 - receive, from the user via the user interface, a wager corresponding to an outcome of a selected event from among the plurality of events; and
 - in response to receiving the wager from the user:
 - place the wager on the outcome of the selected event;
 - control a selected display of the one or more displays to display a content feed corresponding to the selected event.
2. A system according to claim 1 or any other claim recited herein wherein the one or more displays comprises a plurality of displays.
3. A system according to any one of claims 1 to 2 or any other claim recited herein wherein the controller is configured to select the selected display based, at least in part, on a location of the user relative to the selected display.
4. A system according to any one of claims 1 to 3 or any other claim recited herein wherein the controller is configured to select the selected display based, at least in part, on a location, relative to the selected display, of a remote interface unit which embodies the user interface.
5. A system according to any one of claims 1 to 4 or any other claim recited herein wherein the controller is configured to select the selected display based, at least in part, on a wagering history of the user.
6. A system according to claim 5 or any other claim recited herein wherein the wagering history of the user comprises a historical rate of the user using the system to make wagers.
7. A system according to any one of claims 5 to 6 or any other claim recited herein wherein the wagering history of the user comprises a history of amounts wagered by the user using the system.

8. A system according to any one of claims 5 to 7 or any other claim recited herein wherein the wagering history of the user comprises a history of amounts won by the user on wagers placed using the system.
9. A system according to any one of claims 1 to 8 or any other claim recited herein wherein the controller is configured to select the selected display based, at least in part, on a location of the selected event.
10. A system according to any one of claims 1 to 9 or any other claim recited herein wherein the controller is configured to select the selected display based, at least in part, on the user's history of spending on goods and services provided by a venue in which the one or more displays are located.
11. A system according to claim 10 or any other claim recited herein wherein the user's history of spending comprises a historical spending rate of the user on goods and services provided by the venue.
12. A system according to any one of claims 10 to 11 or any other claim recited herein wherein the user's history of spending comprises a history of amounts spent by the user on goods and services provided by the venue.
13. A system according to any one of claims 1 to 12 or any other claim recited herein wherein the controller is configured to select the selected display based, at least in part, on an amount of the wager.
14. A system according to any one of claims 1 to 13 or any other claim recited herein wherein the controller is configured to select the selected display based, at least in part, on a time at which the wager is placed.
15. A system according to any one of claims 1 to 14 or any other claim recited herein wherein one or more settings of the selected display are controllable by the user via the user interface.
16. A system according to any one of claims 1 to 15 or any other claim recited herein wherein, in response to receiving a plurality of wagers from each of a plurality of users, each of the plurality of wagers corresponding to an event, the controller is configured to select the selected event from the plurality of events based on a user ranking of the plurality of users.
17. A system according to claim 16 or any other claim recited herein wherein the user

- ranking is based on a time at which at least one of the plurality of wagers was placed.
18. A system according to any one of claims 16 to 17 or any other claim recited herein wherein the user ranking is based on a wager amount corresponding to at least one of the plurality of wagers.
 19. A system according to any one of claims 16 to 18 or any other claim recited herein wherein the user ranking is based on a wagering history of at least one of the plurality of users.
 20. A system according to claim 19 or any other claim recited herein wherein the wagering history comprises a historical rate of at least one of the plurality of users using the system to make wagers.
 21. A system according to any one of claims 19 to 20 or any other claim recited herein wherein the wagering history comprises a history of amounts wagered by at least one of the plurality of users using the system.
 22. A system according to any one of claims 19 to 21 or any other claim recited herein wherein the wagering history comprises a history of amounts won by at least one of the plurality of users on wagers placed using the system.
 23. A system according to any one of claims 1 to 22 or any other claim recited herein wherein the one or more displays comprise a plurality of displays, at least one display of the plurality of displays is reserved, and the processor is configured to select the selected display only if the selected display is not reserved.
 24. A system according to claim 23 or any other claim recited herein wherein the reserved display is controllable by an administrator.
 25. A system according to any one of claims 1 to 24 or any other claim recited herein wherein the controller is configured to control the selected display of the one or more displays to display the content feed corresponding to the selected event only if the user is the highest ranking user attempting to display content on the selected display as determined by a user ranking.
 26. A system according to claim 25 or any other claim recited herein wherein the controller is configured to determine the user's rank within the user ranking based on a time at which the wager is placed.
 27. A system according to one of claims 25 to 26 or any other claim recited herein wherein

- the controller is configured to determine the user's rank within the user ranking based on an amount of the wager.
28. A system according to one of claims 25 to 27 or any other claim recited herein wherein the controller is configured to determine the user's rank within the user ranking based on a wagering history of the user.
29. A system according to claim 28 or any other claim recited herein wherein the wagering history comprises a historical rate of wagering by the user using the system.
30. A system according to any one of claims 28 to 29 or any other claim recited herein wherein the wagering history comprises a history of amounts wagered by the user using the system.
31. A system according to any one of claims 28 to 30 or any other claim recited herein wherein the wagering history comprises a history of amounts won in wagers placed by the user using the system.
32. A method for placing pari-mutuel wagers, the method comprising:
- providing, to a user, an ability to place pari-mutuel wagers on one or more outcomes of each of a plurality of events;
 - receiving, from the user via a user interface, a wager corresponding to an outcome of a selected event from among the plurality of events; and
 - in response to receiving the wager from the user:
 - placing the wager on the outcome of the selected event; and
 - controlling a selected display to display a content feed corresponding to the selected event.
33. A method according to claim 32 or any other claim recited herein comprising any of the features of any of claims 2 to 31.
34. A system for placing pari-mutuel wagers, the system comprising a processor in communication with a user interface and a network, the processor configured to:
- receive a user identification via the user interface;
 - determine a first stored value account associated with the user based on the user identification;
 - receive, from the user via the user interface, a wager corresponding to an outcome of a selected event and a corresponding wager amount; and

- in response to receiving the wager from the user:
- place the wager on the outcome of the selected event;
 - debit the first stored value account based on the wager amount; and
 - credit the first stored value account with a winning amount if the wager wins.
35. A system according to claim 34 or any other claim recited herein comprising determining a second stored value account associated with the user based on the user identification, wherein the processor is configured to:
- receive a payment from a user;
 - in response to receiving the payment from the user, credit the second stored value account with a payment amount corresponding to an amount of the payment; and
 - transfer a transferred amount from the second stored value account to the first stored value account.
36. A system according to claim 35 or any other claim recited herein wherein the transferred amount corresponds to the wager amount and, in response to receiving the wager from the user, the processor is configured to transfer the transferred amount from the second stored value account to the first stored value account before debiting the first stored value account based on the wager amount.
37. A system according to any one of claims 34 to 36 or any other claim recited herein wherein the processor is configured to provide funds from second stored value account for the user to pay for goods and services provided by a venue in which the system is located.
38. A system according to any one of claims 34 to 37 or any other claim recited herein wherein debiting the first stored value account based on the wager amount comprises transferring an amount based on the wager amount from the first stored value account to a house stored value account.
39. A system account to claim 38 or any other claim recited herein wherein crediting the first stored value account with a winning amount comprises transferring the winning amount from the house stored value account to the first stored value account.
40. A system according to any one of claims 38 to 39 wherein the processor is configured to reconcile the first stored value account with the house stored value account, said reconciliation comprising transferring a transfer amount between the house stored value

- account and the first stored value account, the transfer amount corresponding to one or more debits and credits to the first stored value account during a reconciliation period.
41. A system according to claim 40 or any other claim recited herein wherein the reconciliation period comprises a period of time since a previous reconciliation.
 42. A system according to claim 40 or any other claim recited herein wherein the reconciliation period corresponds to a time between wagers received from the user.
 43. A system according to any one of claims 38 to 42 wherein the processor is configured to transfer a transfer amount from the house stored value account to an external stored value account, the transfer amount corresponding to one or more wager amounts transferred to the house stored value account during a wagering period, and the external stored value account comprising a stored value account of a pari-mutuel wagering oversight body.
 44. A system according to claim 43 or any other claim recited herein wherein the wagering period comprises a period of time since a previous wagering period.
 45. A system according to any one of claims 34 to 44 or any other claim recited herein wherein receiving a user identification via the user interface comprises receiving an identification card at a card reader, the processor in communication with the card reader, the processor configured to receive and authenticate information encoded in the identification card.
 46. A system according to any one of claims 34 to 45 or any other claim recited herein wherein receiving a user identification via the user interface comprises receiving a username and a password, the processor configured to authenticate the username and password.
 47. A system according to any one of claims 34 to 46 or any other claim recited herein comprising an identification verifier in communication with the processor, the identification verifier configured to receive an identification material, the system configured to verify the identification material, and the processor configured to determine whether the identification material, if verified, corresponds to the user.
 48. A method for placing pari-mutuel wagers, the method comprising:
 - receiving a user identification via a user interface;
 - determining a first stored value account associated with the user based on the user identification;

receiving, from the user via the user interface, a wager corresponding to an outcome of a selected event and a corresponding wager amount; and

in response to receiving the wager from the user:

placing the wager on the outcome of the selected event;

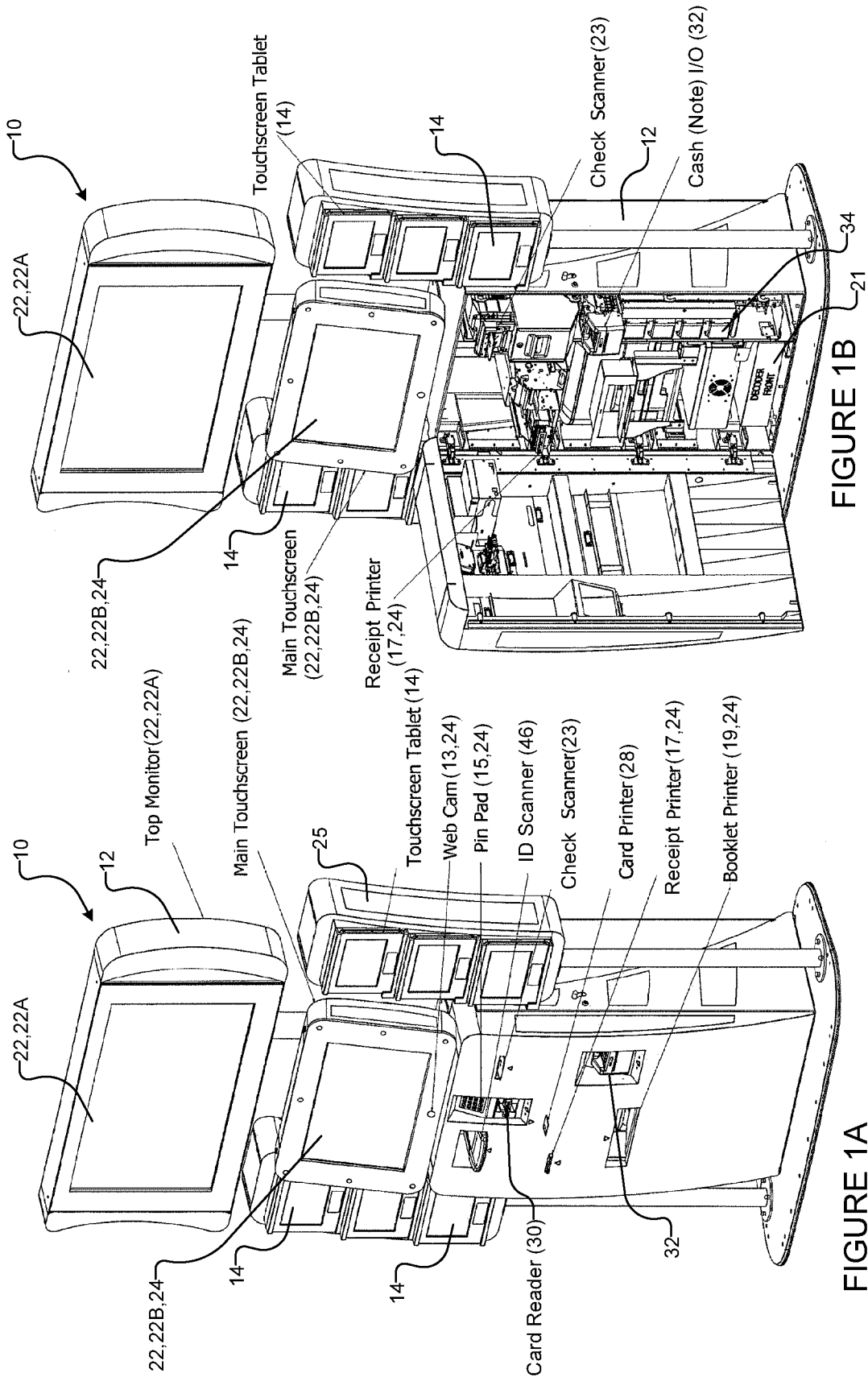
debiting the first stored value account based on the wager amount; and

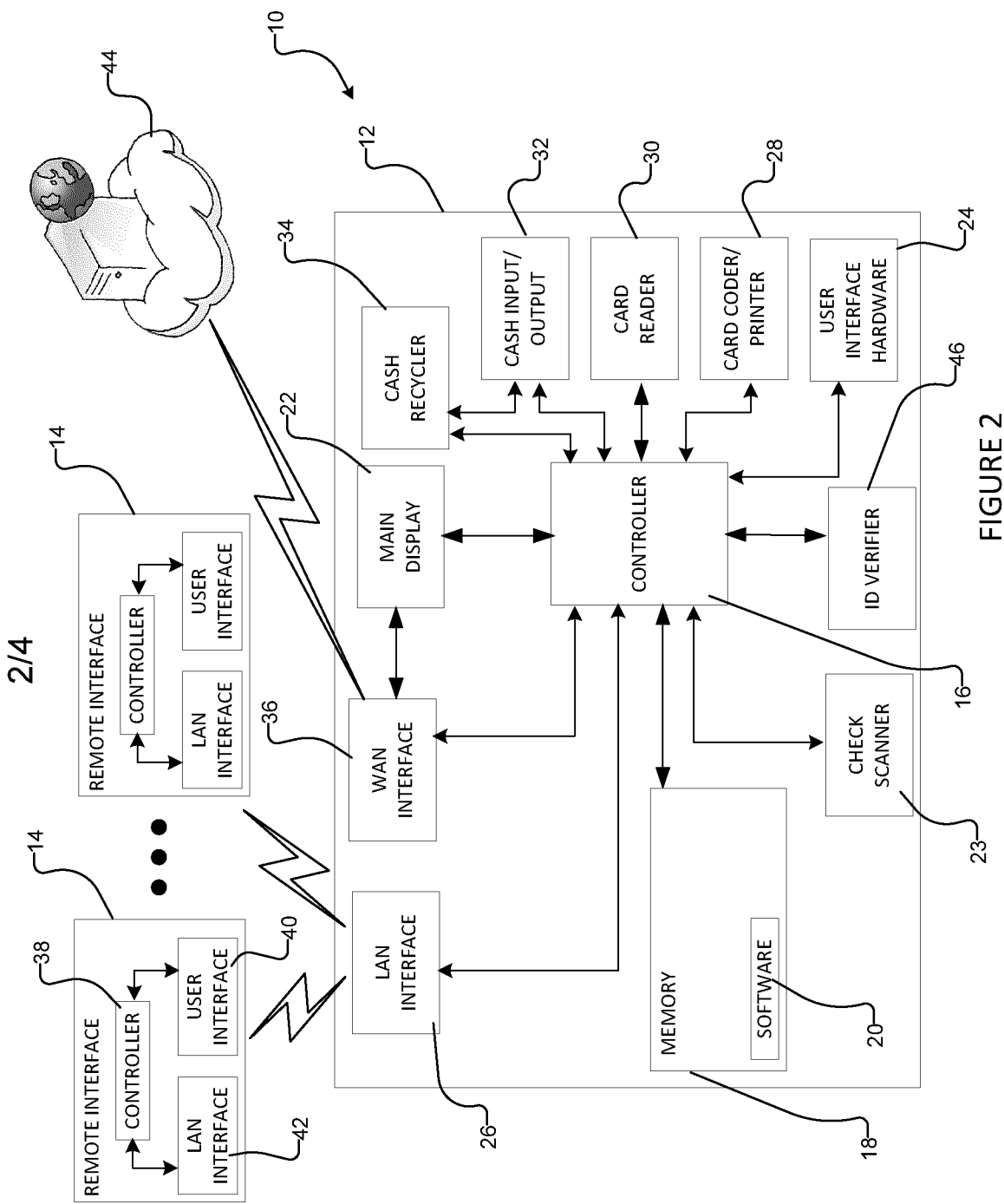
crediting the first stored value account with a winning amount if the wager

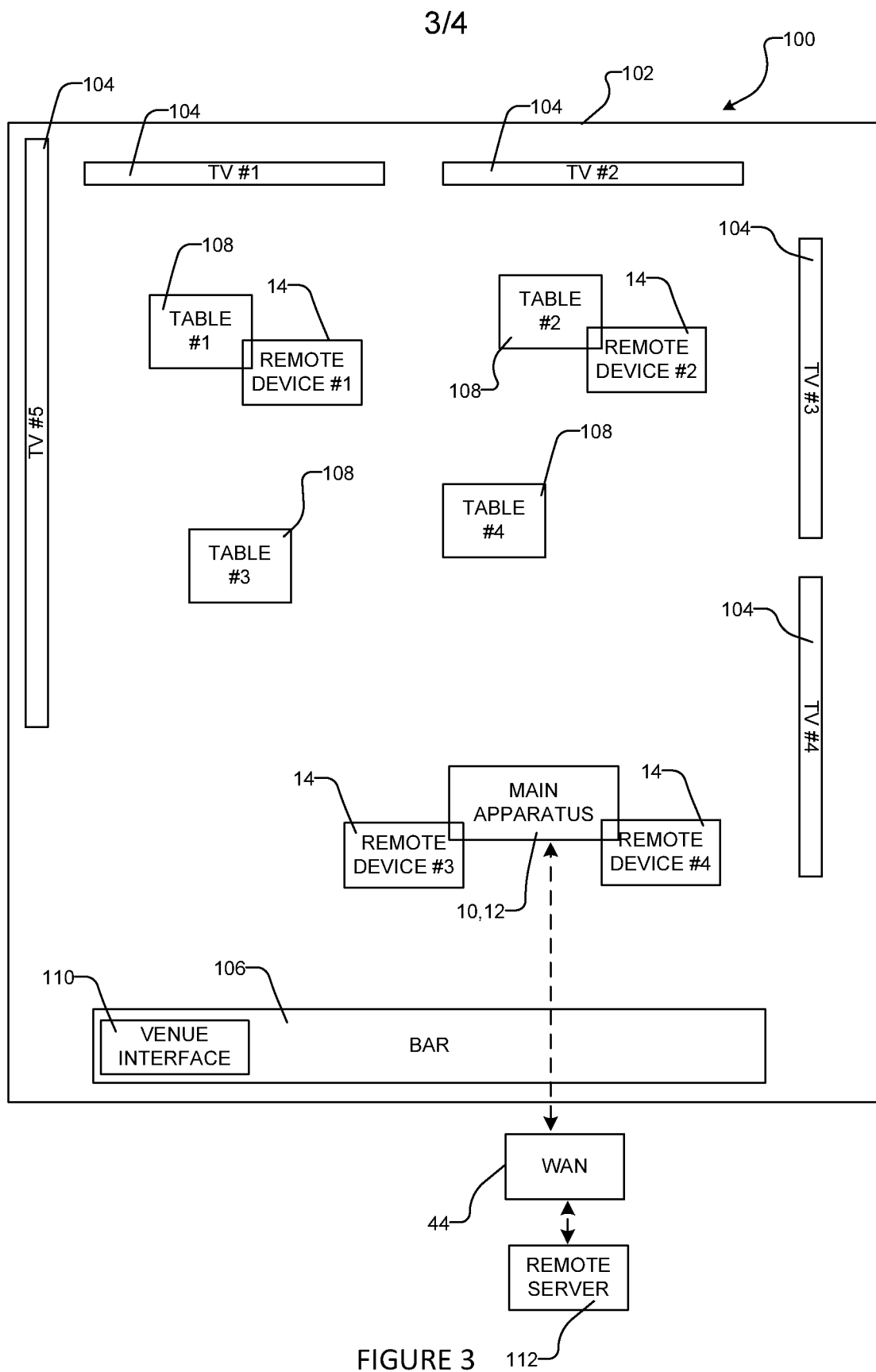
wins.

49. A method according to claim 48 or any other claim recited herein comprising any of the features of any of claims 35 to 47.
40. A method comprising any feature(s), combination(s) of feature(s) or sub-combination(s) of feature(s) disclosed in this description and/or the associated drawings.
51. An apparatus comprising any feature(s), combination(s) of feature(s) or sub-combination(s) of feature(s) disclosed in this description and/or the associated drawings.

1/4







4/4

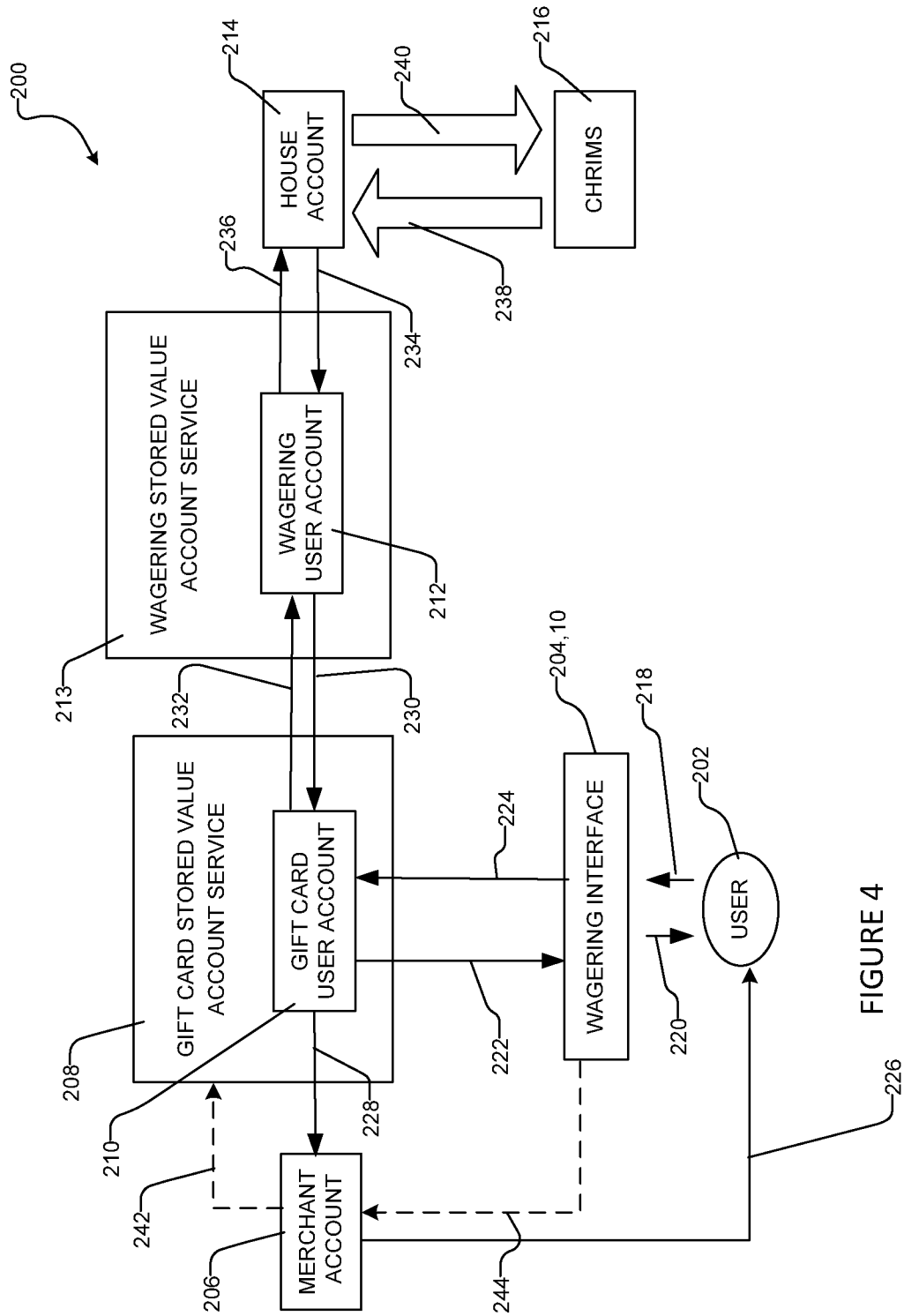


FIGURE 4

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CA2014/050081

A. CLASSIFICATION OF SUBJECT MATTER

IPC: **G07F 17/32** (2006.01), **A63F 13/45** (2014.01), **A63F 13/70** (2014.01), **G06F 21/31** (2013.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: G07F 17/32 (2006.01), A63F 13/45 (2014.01), A63F 13/70 (2014.01), G06F 21/31 (2013.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)

Epoque (Epodoc, Xfull) and Canadian database (Keywords: pari-mutuel wagering, outcome, video feed, audio feed, event display, wagering history, authentication, and similar terms)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2007/0082730 A1 (BROWN) 12 April 2007 (12-04-2007)	1 – 4, 32, 34 and 48
-----	*the entire document and particularly, abstract; para 0005, 0006, 0008, 0011, 0014 - 0016*	-----
Y	* para 0041, 0047 and 0050 -0052; Fig. 2, 3 and 4; Claims 1, 4 and 5*	5 - 31, 33, 35- 47 and 49
Y	US 2013/0029755 A1 (VILLARREAL et al.) 31 January 2013 (31-01-2013)	5 - 31, 33, 35- 47 and 49
Y	*the entire document and particularly, para 0090 – 0098, 0110 and 0112; Fig.8A & 8B*	5 - 31, 33, 35- 47 and 49
Y	AU 2012201379 B2 (BAERLOCHER et al.) 29 March 2012 (29 -03-2012)	5 - 31, 33, 35- 47 and 49
A	*the entire document and particularly, para 0104 – 0113*	
A	US 2006/0121981 A1 (PFENNIGHAUSEN et al.) 08 June 2006 (08-06-2006)	1- 49
	the entire document and particularly, para 0076 – 0080 and 0089 - 0102	

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* “A” “E” “L” “O” “P”	Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance earlier application or patent but published on or after the international filing date document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed	“T” “X” “Y” “&”	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document member of the same patent family
--------------------------------------	--	--------------------------	--

Date of the actual completion of the international search
22 April 2014 (22-04-2014)Date of mailing of the international search report
07 May 2014 (07-05-2014)Name and mailing address of the ISA/CA
Canadian Intellectual Property Office
Place du Portage I, C114 - 1st Floor, Box PCT
50 Victoria Street
Gatineau, Quebec K1A 0C9
Facsimile No.: 001-819-953-2476

Authorized officer

Veeresh Nadarajan (819) 953-1575

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CA2014/050081

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2004/0235542 A1 (STRONACH et al.) 25 November 2004 (25-11-2004) *the entire document and particularly, para 0263 – 0268 and 0295 - 0296*	1 – 49
A	US 2011/0165935 A1 (MENDIOLA) 07 July 2011 (07-07-2011) *the entire document*	1 – 49
Y, P	US 2013/0102372 A1 (LUTNICK et al.) 25 April 2013 (25-04-2013) *the entire document and particularly, para 0325 – 0338, 0342, 0531 - 0532, 0537, 0539* *para 0554, 0555, 0696, 0932, 0942 and 0944*	1 - 49

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CA2014/050081

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of the first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claim Nos.: 50 and 51
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically: they refer to description and drawings for claimed features.

3. ☐ Claim Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claim Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/CA2014/050081

Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
US2007082730A1	12 April 2007 (12-04-2007)	None	
US2013029755A1	31 January 2013 (31-01-2013)	CA2842818A1 WO2013016430A3 US2013337894A1	31 January 2013 (31-01-2013) 25 April 2013 (25-04-2013) 19 December 2013 9-12-2013)
AU2012201379B2	29 March 2012 (29-03-2012)	AU2013206195A1	27 June 2013 (27-06-2013)
US2006121981A1	08 June 2006 (08-06-2006)	US7762886B2 CA2593181A1 US2010279763A1 US8591318B2 WO2006062925B1	27 July 2010 (27-07-2010) 15 June 2006 (15-06-2006) 04 November 2010 (04-11-2010) 26 November 2013 (26-11-2013) 24 August 2006 (24-08-2006)
US2004235542A1	25 November 2004 (25-11-2004)	AU780285B2 AU4278800A AU2002349229A1 BR0010174A BR0206849A WO0067215A1 WO03046852A3 CA2372459A1 CA2467498A1 EP1175665A1 EP1449179A2 JP2002542916A US2004229671A1 US2005096124A1 US2002058548A1 US6666769B2 US2002142816A1 US6722980B2 ZA200306544A	10 March 2005 (10-03-2005) 17 November 2000 (17-11-2000) 10 June 2003 (10-06-2003) 28 May 2002 (28-05-2002) 03 August 2004 (03-08-2004) 09 November 2000 (09-11-2000) 08 April 2004 (08-04-2004) 09 November 2000 (09-11-2000) 05 June 2003 (05-06-2003) 30 January 2002 (30-01-2002) 25 August 2004 (25-08-2004) 17 December 2002 (17-12-2002) 18 November 2004 (18-11-2004) 05 May 2005 (05-05-2005) 16 May 2002 (16-05-2002) 23 December 2003 (23-12-2003) 03 October 2002 (03-10-2002) 20 April 2004 (20-04-2004) 28 October 2004 (28-10-2004)
US2011165935A1	07 July 2011 (07-07-2011)	US8128490B2 WO2009022992A2	06 March 2012 (06-03-2012) 19 February 2009 (19-02-2009)
US2013102372A1	25 April 2013 (25-04-2013)	AU2007286884A1 AU2008201004B2 AU2009201701A1 AU2009201702A1 AU2012202128A1 AU2012202130A1 AU2012202354A1 CA2623765A1 CA2653330A1 CA2656934A1 EP2059315A4 JP2008272448A JP2010522574A US2010048302A1	28 February 2008 (28-02-2008) 17 December 2009 (17-12-2009) 21 May 2009 (21-05-2009) 21 May 2009 (21-05-2009) 03 May 2012 (03-05-2012) 03 May 2012 (03-05-2012) 10 May 2012 (10-05-2012) 01 September 2008 (01-09-2008) 28 February 2008 (28-02-2008) 28 February 2008 (28-02-2008) 26 October 2011 (26-10-2011) 13 November 2008 (13-11-2008) 08 July 2010 (08-07-2010) 25 February 2010 (25-02-2010)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA2014/050081

Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
		US8142283B2	27 March 2012 (27-03-2012)
		US2008051171A1	28 February 2008 (28-02-2008)
		US7833101B2	16 November 2010 (16-11-2010)
		US2008058048A1	06 March 2008 (06-03-2008)
		US8398481B2	19 March 2013 (19-03-2013)
		US2008058049A1	06 March 2008 (06-03-2008)
		US7585217B2	08 September 2009 (08-09-2009)
		US2009291732A1	26 November 2009 (26-11-2009)
		US7997973B2	16 August 2011 (16-08-2011)
		US2008070667A1	20 March 2008 (20-03-2008)
		US2008085769A1	10 April 2008 (10-04-2008)
		US8323102B2	04 December 2012 (04-12-2012)
		US2008161101A1	03 July 2008 (03-07-2008)
		US8393954B2	12 March 2013 (12-03-2013)
		US2008191418A1	14 August 2008 (14-08-2008)
		US8216056B2	10 July 2012 (10-07-2012)
		US2008214286A1	04 September 2008 (04-09-2008)
		US8070582B2	06 December 2011 (06-12-2011)
		US2010124967A1	20 May 2010 (20-05-2010)
		US8480471B2	09 July 2013 (09-07-2013)
		US2010124960A1	20 May 2010 (20-05-2010)
		US2008248849A1	09 October 2008 (09-10-2008)
		US8398489B2	19 March 2013 (19-03-2013)
		US2008254881A1	16 October 2008 (16-10-2008)
		US2011065490A1	17 March 2011 (17-03-2011)
		US2011034228A1	10 February 2011 (10-02-2011)
		US8535160B2	17 September 2013 (17-09-2013)
		US2011275432A1	10 November 2011 (10-11-2011)
		WO2008024705A3	20 November 2008 (20-11-2008)
		WO2008109313A1	12 September 2008 (12-09-2008)
		US2011263310A1	27 October 2011 (27-10-2011)
		US8668566B2	11 March 2014 (11-03-2014)
		US2011281627A1	17 November 2011 (17-11-2011)
		US2012052939A1	01 March 2012 (01-03-2012)
		US8636575B2	28 January 2014 (28-01-2014)
		US2013116032A1	09 May 2013 (09-05-2013)
		US2012270637A1	25 October 2012 (25-10-2012)
		US2013122996A1	16 May 2013 (16-05-2013)
		US2013184042A1	18 July 2013 (18-07-2013)
		US2013324221A1	05 December 2013 (05-12-2013)
		US2014011561A1	09 January 2014 (09-01-2014)