DRAFT

DAVIES COLLISON CAVE
INTELLECTUAL PROPERTY

Patent and Trade Mark Attorneys Australia and New Zealand

1 Nicholson Street
Melbourne Victoria 3000
Australia

GPO Box 4387
Melbourne Victoria 3001
Australia

T +61 3 9254 2777
F +61 3 9254 2770
E mail@davies.com.au
W www.davies.com.au
ABN 22 077 969 519

In association with:
Davies Collison Cave Law
Intellectual Property

25 September, 2013

Fee: $300

The Commissioner of Patents
WODEN ACT 2606

Examination Response

Our Ref: 30468512/MRF/azm

Re: Pathfinder Events Pty Ltd
Australian Patent No. 2007335257
"Live combat simulation"

Madam

We are writing in response to the re-examination report.

Please find enclosed herewith:

- a Third Statement of Proposed Amendments; and
- official fees ($300).

We have amended claim 1 such that it incorporates the limitations of *the second signal indicating which of a "kill" and a "wound" to the person results from the receipt of the first signal or that the apparatus of that person was already in an inactive or "dead" state* and that the apparatus is configured *to output, to the person equipped with the* claimed apparatus, *an indication of a said "kill" to the other person or a said "wound" to the other person or that the* apparatus of that other person *is already in a said inactive or "dead" state*.

We have added a new dependent claim, numbered 15, which introduces the limitation of the apparatus *including a display and being configured to output said indication on the display*.

We have also inserted a new dependent claim, numbered 16, which introduces the limitation of the apparatus *including the storage means for storing data indicative of the number of times the target receiver has received a said first signal of another such apparatus, the apparatus being configured such that the firearm-like device thereof becomes disabled from outputting a first signal when said number reaches a predetermined value*.

In addition, we have introduced a new dependent claim, numbered 17, which introduces the limitation of the apparatus *being configured such that the firearm-like device thereof becomes temporarily disabled from outputting a said first signal upon receipt, by the target receiver of the apparatus, of a siad first signal from the firearm-like device of another such apparatus*.

We have also inserted a new dependent claim, numbered 18, which introduces the limitation that *the firearm-like device comprises..a firearm having a firing action generated by an electrical triggering signal or a simulated firearm having a trigger operable to effect*

generation of an electrical triggering signal..and a unit mounted to the firearm or simulated firearm and operable to transmit the first signal.

Furthermore, we have inserted another new dependent claim, numbered 19, which introduces the limitation that *said unit is additionally operable to transmit said second signal.*

Support for the new dependent claims appears in the specification of the patent in its current form; see, for example, page 6, line 20 to page 7, line 2, page 8, line 15 to page 9, line 4, page 10, lines 17 to 20, page 17, lines 16 to 23, page 46, lines 17 and 18, and page 17A, lines 3 to 5.

New independent claim 21, which corresponds to previous claim 17, incorporates limitations consistent with those incorporated into new claim 1.

We have brought the description into conformity with the claims as amended.

We would, at the outset, make the observation that, contrary to what the Examiner has asserted, the invention as defined in the previously filed claims is novel in the light of what is disclosed in US 5966226 ("D1"), US3847396 ("D2"), FR2659136 ("D3"), US4545583 ("D9"), US2005/0186884 ("D10") and EP0108643 ("D12").

Regarding D1, each apparatus of the combat system disclosed in this document includes a laser emitter rather than an infrared transmitter consistent with the apparatus of the invention.

Regarding D2, the ray gun disclosed in this document, at odds with the apparatus of the invention, is used in a weapon training system and, like each of the apparatuses disclosed in D1, does not emit an infrared first signal but instead emits a laser signal. Although D2 discloses the use of a radio signal, that signal is transmitted from an umpire to a target, unlike the radio signal transmitted by the apparatus of the invention, which is used to indicate that the target receiver of that apparatus has been hit by a firing signal from a like apparatus.

Regarding D3, each of the apparatuses of the combat simulation system disclosed in this document emits a firing signal as a laser signal rather than as an infrared signal consistent with the apparatus of the invention.

Regarding D9, the gaming apparatus with which each player is equipped in the gaming system disclosed in this document, unlike the apparatus of the invention, transmits signals to, and receives signals from, a master control unit.

Regarding D10, this document discloses a remote control game system comprising remote controlled vehicles each of which is operable to generate an offensive signal, for the purposes of landing a "hit" on another of the vehicles, and to generate a hit signal upon being hit by the offensive signal of another of the vehicles. There is no disclosure in this document of a person being equipped with components of the system such that a *hit* can be *made on* that person consistent with the apparatus of the invention.

Regarding D12, in the remote animal identification system disclosed in this document, an interrogator gun generates a signal which can be directed at a transponder carried by an animal, and receives a coded RF signal transmitted by the transponder upon receipt of the signal from the gun. The gun, unlike the apparatus of the invention, does not have *a target receiver configured to receive [an infrared signal] from another such apparatus* or *a radio transmitter configured to transmit, to the apparatus, a radio signal upon the target receiver so receiving [such a signal].*

The limitations incorporated into new claims 1 and 21 were not common general knowledge before the priority date and are not taught in any of the prior art references cited by the Examiner. Therefore, even if there were to be information disclosed in any of these documents which a person skilled in the art could, before the priority date, be reasonably expected to have ascertained, understood and regarded as relevant, such information could not be combined in any manner to result in the invention.

We submit, having regard to the foregoing, that the invention not only is novel but also involves an inventive step.

Yours respectfully,
DAVIES COLLISON CAVE

Robert Finn

AUSTRALIAN PATENT NO. 2007335257

PATHFINDER EVENTS PTY LTD

FIRST STATEMENT OF PROPOSED AMENDMENTS

1. Cancel pages 3, 4, 16 and 17 of the description at present on file and replace with new pages 3, 4, 4a 16 and 17 forwarded herewith, together with a marked-up copy.

2. Cancel claims pages at present on file and replace with new pages 66 to 71 forwarded herewith, together with a marked-up copy.

25 September, 2013

combat simulations and, in consequence, enjoyment and/or effectiveness as a training tool. The manufacturing costs associated with designing and producing a range of the custom made firearm-like devices arranged to accurately simulate in both handling and appearance a range of different firearms and for use in live combat simulations, however, is considered prohibitive.

According to a first aspect of the present invention, there is provided an electric apparatus with which a person may be equipped for live combat simulation, the apparatus comprising:

a firearm-like device provided with an infrared emitter and being configured to be fired by the person such that an infrared signal ("first signal") is output from the device in a direction in which the device is aimed;

a target receiver configured to receive a first signal from the firearm-like device of another such apparatus if the direction of that signal is towards the target receiver; and

a radio transmitter configured to transmit, to the other apparatus, a radio signal ("second signal") upon the target receiver so receiving a said first signal from the firearm-like device of the other apparatus, the second signal indicating which of a "kill" and a "wound" to the person results from the receipt of the first signal or that the apparatus of that person was already in an inactive or "dead" state,

the apparatus being configured to receive and process a said second signal emitted by the radio transmitter of another such apparatus upon the target receiver of the latter apparatus receiving a said first signal from the firearm-like device of the

former apparatus, to register that a hit has been made on another person in the simulation who is equipped with the latter apparatus and to output, to the person equipped with the former apparatus, an indication of a said "kill" to the other person or a said "wound" to the other person or that the latter apparatus is already in a said inactive or "dead" state.

In the preferred embodiments of the invention, the simulation may, advantageously, be "hubless", in the sense that the there may be no requirement for a centralised controller (operated by a referee or supervisor), and no need to rely on that controller remaining operational, the simulation instead being able to proceed purely as a result of the interaction between the apparatuses.

The apparatus according to preferred embodiments of the invention advantageously enables real-time hit-feedback in an indoor or outdoor environment when playing a live combat simulation game. For example, the first signal, being directional, is able to effectively simulate the firing of the device, with the first signal when received by a like apparatus being indicative of a hit on the like apparatus by the first device. The second signal is able to be used to provide substantially instantaneous feedback if the first signal registers a hit, thereby enabling a player firing the device to be informed of whether the firing was successful. The second signal provides feedback to the player that their hit has resulted in an opponent player being "hit" or "killed" or that the device of the hit opponent player was already in an inactive or "dead" state.

Advantageously, the apparatus according to preferred embodiments of the invention is arranged to selectively simulate or emulate the characteristics of one or more real-life firearms. Preferably, the first signal is emitted in the same direction as the assumed trajectory of an assumed missile fired from the device.

form of the unit could be used, in addition to traditional skirmish-type combat simulation games, in fairs, festivals and re-enactment societies, for example. Further still, it will be understood that the designs of the unit and firearm may not be limited to a military style, and may be other designs, such as a science-fiction style, for example.

According to a second aspect of the present invention, there is provided a live combat simulation system, comprising a plurality of apparatuses each of which accords with any one of the preceding claims.

According to a third aspect of the present invention, there is provided a live combat simulation system comprising a plurality of electric apparatuses with each of which a respective person may be equipped, each apparatus comprising:

a firearm-like device provided with an infrared emitter and being configured to be fired by the respective person such that an infrared signal ("first signal") is output from the device in a direction in which the device is aimed;

a target receiver configured to receive a first signal from the firearm-like device of the other, or another, of the apparatuses if the direction of that signal is towards the target receiver; and

a radio transmitter configured to transmit, to that other apparatus, a radio signal ("second signal") upon the target receiver so receiving a said first signal from the firearm-like device of the other apparatus, the second signal indicating which of a "kill" and a "wound" to the person results from the receipt of the first signal or that the

apparatus of that person was already in an inactive or "dead" state,

each apparatus being configured to receive and process a said second signal emitted by the radio transmitter of the other, or another, of the apparatuses upon the target receiver of the latter apparatus receiving a said first signal from the firearm-like device of the former apparatus, to register that a hit has been made on another person in the simulation who is equipped with the latter apparatus and to output, to the person equipped with the former apparatus, an indication of a said "kill" to the other person or a said "wound" to the other person or that the latter apparatus is already in a said inactive or "dead" state.

It will be appreciated that the aforementioned preferred features and characteristics of the apparatus according to the first aspect of the invention are equally applicable to the apparatuses in the system according to the second or third aspect of the invention.

In particular, the apparatuses of the system are preferably adapted to receive a third signal for controlling their operation, and the system preferably includes an apparatus adapted to transmit the third signal, which is preferably one, or any one, of said apparatuses.

Also disclosed herein is a unit for use by a game player in a live combat simulation, the unit being attachable to a firearm having a firing action generated by an electrical triggering signal or to a simulated firearm in which operation of the trigger generates

an electrical triggering signal the unit including a transmitter for transmitting at least a first signal towards a target receiver on another game player in response to the triggering signal, wherein the said first signal from a like device of another game player received by a target receiver of the first player is indicative of a hit on the first player by that other player.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS

1. An electric apparatus with which a person may be equipped for live combat simulation, the apparatus comprising:

a firearm-like device provided with an infrared emitter and being configured to be fired by the person such that an infrared signal ("first signal") is output from the device in a direction in which the device is aimed;

a target receiver configured to receive a first signal from the firearm-like device of another such apparatus if the direction of that signal is towards the target receiver; and

a radio transmitter configured to transmit, to the other apparatus, a radio signal ("second signal") upon the target receiver so receiving a said first signal from the firearm-like device of the other apparatus, the second signal indicating which of a "kill" and a "wound" to the person results from the receipt of the first signal or that the apparatus of that person was already in an inactive or "dead" state,

the apparatus being configured to receive and process a said second signal emitted by the radio transmitter of another such apparatus upon the target receiver of the latter apparatus receiving a said first signal from the firearm-like device of the former apparatus, to register that a hit has been made on another person in the simulation who is equipped with the latter apparatus and to output, to the person equipped with the former apparatus, an indication of a said "kill" to the other person or a said "wound" to the other person or that the latter apparatus is already in a said inactive or "dead" state.

2. An apparatus according to claim 1, wherein the target receiver comprises at least one sensor mountable on the body of the person to be equipped with the apparatus and configured to sense a said first signal from the firearm-like device of another such apparatus.

3. An apparatus according to claim 1 or claim 2, wherein the target receiver comprises at least one sensor provided on the firearm-like device and configured to sense a said first signal from the firearm-like device of another such apparatus.

4. An apparatus according to any one of the preceding claims, wherein the firearm-like device includes a lens arranged to receive and focus infrared radiation from the emitter whereby to output each first signal as a relatively narrow beam.

5. An apparatus according to any one of the preceding claims, wherein the target receiver is configured to filter out infrared radiation not associated with a said first signal from the firearm-like device of another such apparatus.

6. An apparatus according to any one of the preceding claims, including adjustment means for varying an effective range of the first signal.

7. An apparatus according to any one of the preceding claims, wherein the radio transmitter is a digital radio transmitter whereby the second signal is a digital radio

signal.

8. An apparatus according to any one of the preceding claims, including means for receiving a third signal ("the receiving means"), the apparatus being configured such that operation thereof is controllable by the third signal.

9. An apparatus according to claim 8, wherein the receiving means comprises said target receiver.

10. An apparatus according to any one of the preceding claims, being selectively operable on any one of a plurality of effective channels, each channel being specific to a particular combat simulation game.

11. An apparatus according to any one of the preceding claims, being configured such that a said first signal output from the firearm-like device thereof contains an identifier of that apparatus, whereby another such apparatus, upon receipt of the first signal by the target receiver thereof, can identify that apparatus, the apparatus being further configured to identify another such apparatus upon receipt, by the target receiver thereof, of a said first signal from that other apparatus.

12. An apparatus according to claim 11, being configured such that a said second signal transmitted by the radio transmitter thereof is receivable only by the target receiver of the other such apparatus which output the first signal which gave rise to

that second signal.

13. An apparatus according to any one of the preceding claims, being a game apparatus.

14. An apparatus according to any one of the preceding claims, being configured such that the simulation is hubless.

15. An apparatus according to any one of the preceding claims, including a display and being configured to output said indication on the display.

16. An apparatus according to any one of the preceding claims, including storage means for storing data indicative of the number of times the target receiver has received a said first signal of another such apparatus, the apparatus being configured such that the firearm-like device thereof becomes disabled from outputting a first signal when said number reaches a predetermined value.

17. An apparatus according to claim 16, being configured such that the firearm-like device thereof becomes temporarily disabled from outputting a said first signal upon receipt, by the target receiver of the apparatus, of a said first signal from the fire-arm like device of another such apparatus, where the received signal does not cause the apparatus to enter a said "dead" state.

18. An apparatus according to any one of the preceding claims, wherein the firearm-like device comprises:

a firearm having a firing action generated by an electrical triggering signal or a simulated firearm having a trigger operable to effect generation of an electrical triggering signal; and

a unit mounted to the firearm or simulated firearm and operable to transmit the first signal.

19. An apparatus according to claim 18, wherein said unit is additionally operable to transmit said second signal.

20. An electric game apparatus substantially as hereinbefore described with reference to the accompanying drawings.

21. A live combat simulation system, comprising a plurality of apparatuses each of which accords with any one of the preceding claims.

22. A live combat simulation system comprising a plurality of electric apparatuses with each of which a respective person may be equipped, each apparatus comprising:

a firearm-like device provided with an infrared emitter and being configured to be fired by the respective person such that an infrared signal ("first signal") is output from the device in a direction in which the device is aimed;

a target receiver configured to receive a first signal from the firearm-like device of the other, or another, of the apparatuses if the direction of that signal is towards the target receiver; and

a radio transmitter configured to transmit, to that other apparatus, a radio signal ("second signal") upon the target receiver so receiving a said first signal from the firearm-like device of the other apparatus, the second signal indicating which of a "kill" and a "wound" to the person results from the receipt of the first signal or that the apparatus of that person was already in an inactive or "dead" state,

each apparatus being configured to receive and process a said second signal emitted by the radio transmitter of the other, or another, of the apparatuses upon the target receiver of the latter apparatus receiving a said first signal from the firearm-like device of the former apparatus, to register that a hit has been made on another person in the simulation who is equipped with the latter apparatus and to output, to the person equipped with the former apparatus, an indication of a said "kill" to the other person or a said "wound" to the other person or that the latter apparatus is already in a said inactive or "dead" state.

23. A live combat simulation system according to claim 20, wherein each apparatus accords with any one of claims 1 to 19.

24. A live combat simulation system substantially as hereinbefore described with reference to the accompanying drawings.

combat simulations and, in consequence, enjoyment and/or effectiveness as a training tool. The manufacturing costs associated with designing and producing a range of the custom made firearm-like devices arranged to accurately simulate in both handling and appearance a range of different firearms and for use in live combat simulations, however, is considered prohibitive.

According to a first aspect of the present invention, there is provided an electric apparatus with which a person may be equipped for live combat simulation, the apparatus comprising:

a firearm-like device provided with an infrared emitter and being configured to be fired by the person such that an infrared signal ("first signal") is output from the device in a direction in which the device is aimed;

a target receiver configured to receive a first signal from the firearm-like device of another such apparatus if the direction of that signal is towards the target receiver; and

a radio transmitter configured to transmit, to the other apparatus, a radio signal ("second signal") upon the target receiver so receiving a said first signal from the firearm-like device of the other apparatus, the second signal indicating which of a "kill" and a "wound" to the person results from the receipt of the first signal or that the apparatus of that person was already in an inactive or "dead" state,

the apparatus being configured to receive and process a said second signal emitted by the radio transmitter of another such apparatus upon the target receiver of the latter apparatus receiving a said first signal from the firearm-like device of the

former apparatus, to register that a hit has been made on another person in the simulation who is equipped with the latter apparatus and to output, to the person equipped with the former apparatus, an indication of a said "kill" to the other person or a said "wound" to the other person or that the latter apparatus is already in a said inactive or "dead" state.

In the preferred embodiments of the invention, the simulation may, advantageously, be "hubless", in the sense that the there may be no requirement for a centralised controller (operated by a referee or supervisor), and no need to rely on that controller remaining operational, the simulation instead being able to proceed purely as a result of the interaction between the apparatuses.

The apparatus according to preferred embodiments of the invention advantageously enables real-time hit-feedback in an indoor or outdoor environment when playing a live combat simulation game. For example, the first signal, being directional, is able to effectively simulate the firing of the device, with the first signal when received by a like apparatus being indicative of a hit on the like apparatus by the first device. The second signal is able to be used to provide substantially instantaneous feedback if the first signal registers a hit, thereby enabling a player firing the device to be informed of whether the firing was successful. The second signal provides feedback to the player that their hit has resulted in an opponent player being "hit", or "killed", or that the device of the hit opponent player was already in an inactive or "dead" state.

Deleted: C:\NRPortbl\DCC\AZM\4211642_1.DOC

Deleted: 23/09/2013

Deleted: an electric apparatus with which a person may be equipped for live combat simulation, the apparatus comprising:¶
a firearm-like device provided with an infrared emitter and being configured to be fired by the person such that an infrared signal ("first signal") is output from the device in a direction in which the device is aimed;¶
a target receiver configured to receive a first signal from the firearm-like device of another such apparatus if the direction of that signal is towards the target receiver; and¶
a radio transmitter configured to transmit, to the other apparatus, a radio signal ("second signal") upon the target receiver so receiving a said first signal from the firearm-like device of the other apparatus,¶
the apparatus being configured to receive and process a said second signal emitted by the radio transmitter of another such apparatus upon the target receiver of the latter apparatus receiving a said first signal from the firearm-like device of the former apparatus, to register that a hit has been made on another person in the simulation who is equipped with the latter apparatus.¶

Deleted: For example, t

Deleted: may be used to

Deleted: , and possibly

Deleted: .

Deleted: Alternatively, or additionally, the second signal may be used to provide feedback to the player as to whether

Advantageously, the apparatus according to preferred embodiments of the invention is arranged to selectively simulate or emulate the characteristics of one or more real-life firearms. Preferably, the first signal is emitted in the same direction as the assumed trajectory of an assumed missile fired from the device.

form of the unit could be used, in addition to traditional skirmish-type combat simulation games, in fairs, festivals and re-enactment societies, for example. Further still, it will be understood that the designs of the unit and firearm may not be limited to a military style, and may be other designs, such as a science-fiction style, for example.

According to a second aspect of the present invention, there is provided a live combat simulation system, comprising a plurality of apparatuses each of which accords with any one of the preceding claims.

According to a third aspect of the present invention, there is provided a live combat simulation system comprising a plurality of electric apparatuses with each of which a respective person may be equipped, each apparatus comprising:

a firearm-like device provided with an infrared emitter and being configured to be fired by the respective person such that an infrared signal ("first signal") is output from the device in a direction in which the device is aimed;

a target receiver configured to receive a first signal from the firearm-like device of the other, or another, of the apparatuses if the direction of that signal is towards the target receiver; and

a radio transmitter configured to transmit, to that other apparatus, a radio signal ("second signal") upon the target receiver so receiving a said first signal from the firearm-like device of the other apparatus, the second signal indicating which of a "kill" and a "wound" to the person results from the receipt of the first signal or that the

apparatus of that person was already in an inactive or "dead" state,

each apparatus being configured to receive and process a said second signal emitted by the radio transmitter of the other, or another, of the apparatuses upon the target receiver of the latter apparatus receiving a said first signal from the firearm-like device of the former apparatus, to register that a hit has been made on another person in the simulation who is equipped with the latter apparatus and to output, to the person equipped with the former apparatus, an indication of a said "kill" to the other person or a said "wound" to the other person or that the latter apparatus is already in a said inactive or "dead" state.

Deleted: a live combat simulation system comprising a plurality of electric apparatuses with each of which a respective person may be equipped, each apparatus comprising:¶
a firearm-like device provided with an infrared emitter and being configured to be fired by the respective person such that an infrared signal ("first signal") is output from the device in a direction in which the device is aimed;¶
a target receiver configured to receive a first signal from the firearm-like device of the other, or another, of the apparatuses if the direction of that signal is towards the target receiver; and¶
a radio transmitter configured to transmit, to that other apparatus, a radio signal ("second signal") upon the target receiver so receiving a said first signal from the firearm-like device of the other apparatus,¶
each apparatus being configured to receive and process a said second signal emitted by the radio transmitter of the other, or another, of the apparatuses upon the target receiver of the latter apparatus receiving a said first signal from the firearm-like device of the former apparatus, to register that a hit has been made on another person in the simulation who is equipped with the latter apparatus.¶

It will be appreciated that the aforementioned preferred features and characteristics of the apparatus according to the first aspect of the invention are equally applicable to the apparatuses in the system according to the second or third aspect of the invention.

In particular, the apparatuses of the system are preferably adapted to receive a third signal for controlling their operation, and the system preferably includes an apparatus adapted to transmit the third signal, which is preferably one, or any one, of said apparatuses.

Also disclosed herein is a unit for use by a game player in a live combat simulation, the unit being attachable to a firearm having a firing action generated by an electrical triggering signal or to a simulated firearm in which operation of the trigger generates

an electrical triggering signal the unit including a transmitter for transmitting at least a first signal towards a target receiver on another game player in response to the triggering signal, wherein the said first signal from a like device of another game player received by a target receiver of the first player is indicative of a hit on the first player by that other player.

Deleted: C:\NRPortbl\DCC\AZM\4211642_1.DOC
Deleted: 23/09/2013
Formatted: Centered

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS

1. An electric apparatus with which a person may be equipped for live combat simulation, the apparatus comprising:

a firearm-like device provided with an infrared emitter and being configured to be fired by the person such that an infrared signal ("first signal") is output from the device in a direction in which the device is aimed;

a target receiver configured to receive a first signal from the firearm-like device of another such apparatus if the direction of that signal is towards the target receiver; and

a radio transmitter configured to transmit, to the other apparatus, a radio signal ("second signal") upon the target receiver so receiving a said first signal from the firearm-like device of the other apparatus, the second signal indicating which of a "kill" and a "wound" to the person results from the receipt of the first signal or that the apparatus of that person was already in an inactive or "dead" state,

the apparatus being configured to receive and process a said second signal emitted by the radio transmitter of another such apparatus upon the target receiver of the latter apparatus receiving a said first signal from the firearm-like device of the former apparatus, to register that a hit has been made on another person in the simulation who is equipped with the latter apparatus and to output, to the person equipped with the former apparatus, an indication of a said "kill" to the other person or a said "wound" to the other person or that the latter apparatus is already in a said inactive or "dead" state.

Deleted: .

Deleted: C:\NRPortbl\DCC\AZM\4211642_1.DOC

Deleted: 23/09/2013

Formatted: Centered

2. An apparatus according to claim 1, wherein the target receiver comprises at least one sensor mountable on the body of the person to be equipped with the apparatus and configured to sense a said first signal from the firearm-like device of another such apparatus.

3. An apparatus according to claim 1 or claim 2, wherein the target receiver comprises at least one sensor provided on the firearm-like device and configured to sense a said first signal from the firearm-like device of another such apparatus.

4. An apparatus according to any one of the preceding claims, wherein the firearm-like device includes a lens arranged to receive and focus infrared radiation from the emitter whereby to output each first signal as a relatively narrow beam.

5. An apparatus according to any one of the preceding claims, wherein the target receiver is configured to filter out infrared radiation not associated with a said first signal from the firearm-like device of another such apparatus.

6. An apparatus according to any one of the preceding claims, including adjustment means for varying an effective range of the first signal.

7. An apparatus according to any one of the preceding claims, wherein the radio transmitter is a digital radio transmitter whereby the second signal is a digital radio

Deleted: C:\NRPortbl\DCC\AZM\4211642_1.DOC

Deleted: 23/09/2013

Formatted: Centered

signal.

8. An apparatus according to any one of the preceding claims, including means for receiving a third signal ("the receiving means"), the apparatus being configured such that operation thereof is controllable by the third signal.

9. An apparatus according to claim 8, wherein the receiving means comprises said target receiver.

10. An apparatus according to any one of the preceding claims, being selectively operable on any one of a plurality of effective channels, each channel being specific to a particular combat simulation game.

11. An apparatus according to any one of the preceding claims, being configured such that a said first signal output from the firearm-like device thereof contains an identifier of that apparatus, whereby another such apparatus, upon receipt of the first signal by the target receiver thereof, can identify that apparatus, the apparatus being further configured to identify another such apparatus upon receipt, by the target receiver thereof, of a said first signal from that other apparatus.

12. An apparatus according to claim 11, being configured such that a said second signal transmitted by the radio transmitter thereof is receivable only by the target receiver of the other such apparatus which output the first signal which gave rise to

that second signal.

13. An apparatus according to any one of the preceding claims, being a game apparatus.

14. An apparatus according to any one of the preceding claims, being configured such that the simulation is hubless.

15. An apparatus according to any one of the preceding claims, including a display and being configured to output said indication on the display.

16. An apparatus according to any one of the preceding claims, including storage means for storing data indicative of the number of times the target receiver has received a said first signal of another such apparatus, the apparatus being configured such that the firearm-like device thereof becomes disabled from outputting a first signal when said number reaches a predetermined value.

17. An apparatus according to claim 16, being configured such that the firearm-like device thereof becomes temporarily disabled from outputting a said first signal upon receipt, by the target receiver of the apparatus, of a said first signal from the fire-arm like device of another such apparatus, where the received signal does not cause the apparatus to enter a said "dead" state.

Deleted: C:\NRPortbl\DCC\AZM\4211642_1.DOC

Deleted: 23/09/2013

Formatted: Centered

18. An apparatus according to any one of the preceding claims, wherein the firearm-like device comprises:

a firearm having a firing action generated by an electrical triggering signal or a simulated firearm having a trigger operable to effect generation of an electrical triggering signal; and

a unit mounted to the firearm or simulated firearm and operable to transmit the first signal.

19. An apparatus according to claim 18, wherein said unit is additionally operable to transmit said second signal.

Deleted: 15

20. An electric game apparatus substantially as hereinbefore described with reference to the accompanying drawings.

Deleted: 16

21. A live combat simulation system, comprising a plurality of apparatuses each of which accords with any one of the preceding claims.

Deleted: 17

22. A live combat simulation system comprising a plurality of electric apparatuses with each of which a respective person may be equipped, each apparatus comprising:

a firearm-like device provided with an infrared emitter and being configured to be fired by the respective person such that an infrared signal ("first signal") is output from the device in a direction in which the device is aimed;

Deleted: C:\NRPortbl\DCC\AZM\4211642_1.DOC

Deleted: 23/09/2013

Formatted: Centered

a target receiver configured to receive a first signal from the firearm-like device of the other, or another, of the apparatuses if the direction of that signal is towards the target receiver; and

a radio transmitter configured to transmit, to that other apparatus, a radio signal ("second signal") upon the target receiver so receiving a said first signal from the firearm-like device of the other apparatus, the second signal indicating which of a "kill" and a "wound" to the person results from the receipt of the first signal or that the apparatus of that person was already in an inactive or "dead" state,

Deleted: ¶

each apparatus being configured to receive and process a said second signal emitted by the radio transmitter of the other, or another, of the apparatuses upon the target receiver of the latter apparatus receiving a said first signal from the firearm-like device of the former apparatus, to register that a hit has been made on another person in the simulation who is equipped with the latter apparatus and to output, to the person equipped with the former apparatus, an indication of a said "kill" to the other person or a said "wound" to the other person or that the latter apparatus is already in a said inactive or "dead" state.

Deleted: ¶

Deleted: 18

Deleted: 17

Deleted: 15

23. A live combat simulation system according to claim 20, wherein each apparatus accords with any one of claims 1 to 19.

Deleted: 19

24. A live combat simulation system substantially as hereinbefore described with reference to the accompanying drawings.