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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/447,663	05/29/2007	7224275	73857	2458

22242 7590 05/09/2007

FITCH EVEN TABIN AND FLANNERY
120 SOUTH LA SALLE STREET
SUITE 1600
CHICAGO, IL 60603-3406

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 162 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

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APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

James J. Fitzgibbon, Batavia, IL;

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NOTICE OF ALLOWANCE AND FEE(S) DUE

22242 7590 01/19/2007

FITCH EVEN TABIN AND FLANNERY
120 SOUTH LA SALLE STREET
SUITE 1600
CHICAGO, IL 60603-3406

EXAMINER	
CROSLAND, DONNIE L	
ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 01/19/2007

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/447,663	05/29/2003	James J. Fitzgibbon	73857	2458

TITLE OF INVENTION: MOVABLE BARRIER OPERATORS STATUS CONDITION TRANSCEPTION APPARATUS AND METHOD

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1400	$300	$0	$1700	04/19/2007

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THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

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(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/447,663	05/29/2003	James J. Fitzgibbon	73857	2458

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APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1400	$300	$0	$1700	04/19/2007

EXAMINER	ART UNIT	CLASS-SUBCLASS
CROSLAND, DONNIE L	2612	340-539260

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
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Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 162 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 162 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

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Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Presently amended) A movable barrier operator comprising:

- a controller having a plurality of potential operational status conditions defined, at least in part, by a plurality of operating states;

- a movable barrier interface that is operably coupled to the controller;

- a wireless status condition data transmitter that is operably coupled to the controller, wherein the wireless status condition data transmitter transmits a status condition signal that:

corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states; and

comprises an identifier that is at least relatively unique to the movable barrier operator, such that ~~at least one, but not all, of the at least two operating states~~ the status condition signal substantially uniquely identifies the movable barrier operator.

2. (Original) The movable barrier operator of claim 1 and further comprises at least one condition status sensor that is operably coupled to the controller.

3. (Original) The movable barrier operator of claim 2 wherein the wireless status condition data transmitter transmits data that corresponds to the at least one condition status sensor.

4. (Canceled).

5. (Previously Presented) The movable barrier operator of claim 1 wherein the plurality of operating states includes at least one of:
- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- a lighting status change;
- a vacation mode status change;
- detecting a likely proximal presence of a vehicle;
- detecting the identification of a proximal vehicle; and
- receiving an operating parameter alteration signal.

6. (Original) The movable barrier operator of claim 1 wherein the wireless status condition data transmitter comprises a radio frequency carrier-based transmitter.

7. (Original) The movable barrier operator of claim 1 wherein the wireless status condition data transmitter comprises an infrared carrier-based transmitter.

8. (Original) The movable barrier operator of claim 1 wherein the wireless status condition data transmitter comprises a sonic carrier-based transmitter.

9. (Original) The movable barrier operator of claim 1 wherein the controller includes transmitter control means for automatically causing the wireless status condition data transmitter to transmit a data signal.

10. (Original) The movable barrier operator of claim 9 wherein the transmitter control means automatically causes the wireless status condition data transmitter to transmit the status condition data signal in response to detecting at least a first predetermined condition.

11. (Original) The movable barrier operator of claim 10 wherein the first predetermined condition comprises at least one of the controller:
- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- receiving an operating parameter alteration signal;
- expiration of a predetermined duration of time; and
- attainment of a predetermined point in time.

12. (Original) The movable barrier of claim 1 and further comprising a receiver that is operably coupled to the controller.

13. (Original) The movable barrier operator of claim 12 wherein the controller includes transmitter control means for automatically causing the wireless status condition data transmitter to transmit a status condition data signal in response to the receiver receiving at least a first predetermined signal.

14. (Original) The movable barrier operator of claim 13 wherein the wireless data transmitter comprises an infrared carrier-based transmitter and the receiver comprises a radio frequency carrier-based receiver.

15. (Currently Amended) A method comprising:

at a movable barrier operator:

- detecting at least one predetermined condition as corresponds to a present operational status defined, at least in part, by at least two operating states, of the movable barrier operator;

- in response to detecting the at least one predetermined condition, automatically wirelessly transmitting a status condition signal that:

represents the present operational status defined, at least in part, by the at least two operating states; and

comprises an identifier that is at least relatively unique to the movable barrier operator, such that ~~at least one, but not all, of~~ the status condition signal ~~at least two operating states~~ substantially uniquely identifies the movable barrier operator.

16. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes detecting at least one of:

- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- a lighting status change;
- a vacation mode status change;
- detecting a likely proximal presence of a vehicle; and
- receiving an operating parameter alteration signal.

17. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes:
- monitoring a plurality of operational status conditions;
- detecting the at least one predetermined condition when any of the plurality of operational status conditions occurs.

18. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes at least one of:
- receiving sensor information from a sensor that senses the at least one predetermined condition; and
- monitoring an operating state of the movable barrier operator.

19. (Original) The method of claim 15 wherein automatically wirelessly transmitting a status condition signal includes automatically wirelessly transmitting a status condition signal using at least one of:
- a radio frequency carrier;
- a sonic carrier; and
- an optical carrier.

20. (Original) The method of claim 19 and further comprising also using a wireline connection to transmit at least a portion of the status condition signal.

21. (Original) The method of claim 15 wherein automatically wirelessly transmitting a status condition signal includes automatically wirelessly transmitting a status condition signal that includes an identifier that corresponds to the movable barrier operator.

22. (Original) The method of claim 15 and further comprising:
at a remote peripheral apparatus:
- receiving the status condition signal;
- in response to receiving the status condition signal, effecting a predetermined action that corresponds to the status condition signal.

23. (Original) The method of claim 22 wherein the predetermined action includes at least one of:
- activating a light;
- deactivating a light;
- activating an audible alarm;
- deactivating an audible alarm;
- manipulating a locking mechanism;
- providing a corresponding information display;
- allowing remote modification of configuration variables; and
- initiating a timing mechanism.

24. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes receiving a wireless signal that includes, at least in part, an inquiry signal.

25. (Presently amended) An apparatus comprising:

- a movable barrier operator having:

- a controller having a plurality of potential operational status conditions defined, at least in part, by a plurality of operating states; and

- a wireless status condition transmitter operably coupled to the controller, wherein the wireless status condition data transmitter transmits a status condition signal that:

corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states; and comprises an identifier that is at least relatively unique to the movable barrier operator, such that the status condition signal ~~at least one, but not all, of the at least two operating states~~ substantially uniquely identifies the movable barrier operator;

- a remote peripheral having:

- a wireless receiver that is communicatively compatible with the wireless transmitter;

- a peripheral controller that is operably coupled to the wireless receiver.

26. (canceled).

27. (Previously Presented) The apparatus of claim 25 wherein the plurality of operating states includes at least one of:
- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- a lighting status change;
- a vacation mode status change;
detecting a likely proximal presence of a vehicle; and
- receiving an operating parameter alteration signal.

28. (Original) The apparatus of claim 25 wherein the remote peripheral comprises at least one of:
- an informational display;
- a light fixture;
- a remote access interface;
- a timer apparatus; and
- an alarm.

29. (Original) The apparatus of claim 25 wherein the movable barrier operator further includes a wireless receiver that is operably coupled to the controller.

30. (Original) The apparatus of claim 29 wherein the remote peripheral further includes a wireless transmitter that is communicatively compatible with the wireless receiver of the movable barrier operator and that is operably coupled to the peripheral controller.

31. (Original) The apparatus of claim 25 and further comprising a plurality of the remote peripherals.

32. (Original) The apparatus of claim 25 wherein the peripheral controller includes reception means for determining when a wireless signal as received from the movable barrier operator includes an identifier that corresponds to the movable barrier operator.

33. (Original) The apparatus of claim 32 wherein the reception means further provides a first control signal when the wireless signal does include the identifier and does not provide the first control signal when the wireless signal does not include the identifier.

REMARKS

Pursuant to the above-noted Office Action, claims 1-3, 5-25, and 27-33 are pending in the present application. Claims 1-3, 6, 9, 10, 12, 15, 17-19, 22, 25, 29, 30, 32, and 33 are rejected under 35 U.S.C. §102(b) on the basis of either Morris (U.S. Patent No. 6,184,787) ("Morris") or Chang (U.S. Patent No. 5,798,681) ("Chang"). Claims 7, 8, 21, 23, and 28 are rejected under 35 U.S.C. §103(a) as being unpatentable over either Morris or Chang. Claims 5, 11, 16, 20, and 27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Morris or Chang in view of Suman (U.S. Patent No. 5,903,226) ("Suman") and Duhame (U.S. Patent No. 4,464,651) ("Duhame"). Claims 13, 14, and 24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Morris or Chang in view of Peterson (U.S. Publication No. 2004/0212498) ("Peterson"). Claim 31 is rejected under 35 U.S.C. §103(a) as being unpatentable over Morris or Chang. The Applicant respectfully traverses these rejections and requests reconsideration.

Claims 1-3, 6, 9, 10, 12, 15, 17-19, 22, 25, 29, 30, 32 and 33 are rejected under 35 U.S.C. §102(b) on the basis of Morris or Chang. With reference to FIG. 1 of Morris (reproduced below), Morris discloses a garage door position monitoring system 10 having a controller 18 that receives a signal from various sensors (12, 14, 16, 48) (which monitor such things a carbon monoxide, temperature, and a position of the garage door) and that sends that signal to a voice synthesizer 20 which in turn sends the signal to a speaker 22 that announces an audible warning.

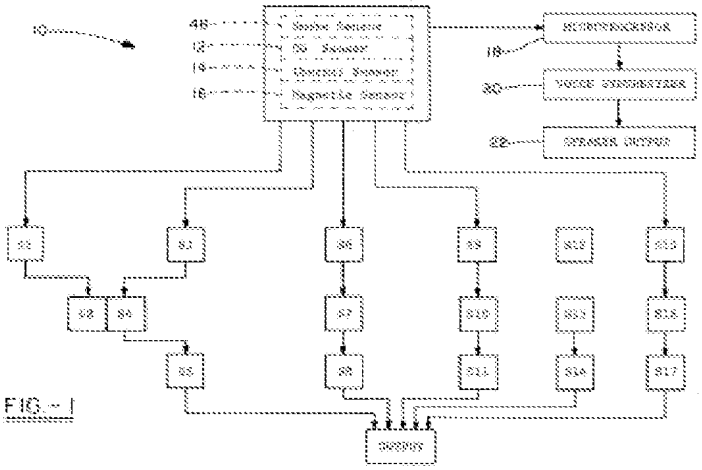
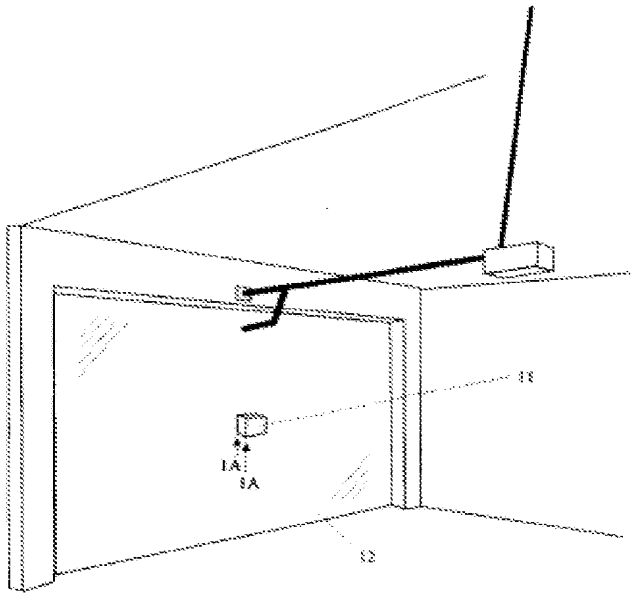


FIG. 1

Morris's apparatus operates wholly apart and independent of any movable barrier operator that may also be provided with respect to the garage door that Morris monitors and Morris makes no teaching or suggestion that his teachings might be usefully applied in conjunction with such a movable barrier operator. Morris's apparatus, for example, will serve in a setting with no movable barrier operator whatsoever as he makes no teachings regarding any communications of any kind between such components.

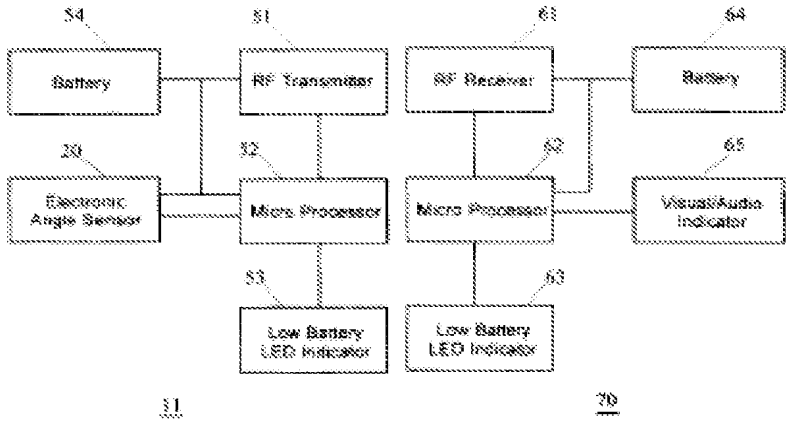
Morris also makes no teachings or suggestion regarding the provision of an identifier of any kind to accompany his transmissions. As a result, for example, a receiver that receives information from two such monitoring systems will be unable to differentiate between them.

Much the same can be said with respect to the teachings of Chang. Chang teaches the provision of a garage door position detector and wireless transmitter unit 11 that attaches to a garage door 12 as shown in Chang's FIG. 1 (reproduced below).



This component 11 detects the angle at which the garage door 12 is presently oriented and transmits that information to a corresponding receiver 70 (which Chang suggests may be located in a car, in a house, or elsewhere within range of the transmitter). Chang provides a

block diagram view of both his transmitter 11 and his receiver 70 in FIG. 5 (reproduced below).



Chang makes no suggestion or teaching that his sensed information regarding the position of the garage door be provided to, or later transmitted by, any garage door opener that might otherwise be associated with this garage door. Instead, Chang simply teachings that his receiver 70 be provided with a visual/audio indicator 65 that can provide colored lights and audible tones that provide an observer these perceptible cues regarding a present orientation of the garage door.

Therefore, as with the Morris reference, Chang's apparatus operates wholly apart and independent of any movable barrier operator that may also be provided with respect to the garage door that Chang monitors and Chang makes no teaching or suggestion that his teachings might be usefully applied in conjunction with such a movable barrier operator. Chang's apparatus, for example, will serve in a setting with no movable barrier operator whatsoever as he makes no teachings regarding any communications of any kind between such components. Similarly, Chang also makes no teachings or suggestion regarding the provision of an identifier of any kind to accompany his transmissions. As a result, for example, a receiver that receives information from two such monitoring systems will be unable to differentiate between them.

The applicant teaches and discloses something quite different. First, the applicant provides teachings with respect to a new movable barrier operator in and of itself. The applicant also makes teachings regarding the provision of a substantially unique identifier that the movable barrier operator provides in conjunction with its status information to permit

a receiver to differentiate this information for other similar information as might be received by another such movable barrier operator (as when, for example, a given garage has two garage doors controlled by separate movable barrier operators).

These differences are well set forth in the independent claims. Claim 1 literally claims "A movable barrier operator" in a limiting preamble. Claim 15 sets forth a method that is practiced by a "movable barrier operator." And claim 25 sets forth an apparatus that comprises a "movable barrier operator." As neither Morris nor Chang make any teaching or suggestion in this regard, neither reference can be said to anticipate the recitations of these claims.

Similarly, all three of these independent claims specifically provide for the transmission of a "status condition signal that:

> corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states; and *comprises an identifier that is at least relatively unique to the movable barrier operator, such that the status condition signal substantially uniquely identifies the movable barrier operator*."[1]

Again, neither Morris nor Chang make any such teaching or suggestion and hence again fail to anticipate this element of these claims.

The remaining claims are dependent claims that ultimately depend upon one of the above-discussed independent claims, which claims have been shown to be allowable. In addition, these claims introduce additional subject matter that, particularly when considered in context with the claims from which they depend, constitutes incremental patentable content. Applicant reserves the right to present further arguments in the future with regard to these dependent claims in the event that their corresponding independent claims are found to be unpatentable.

[1] Emphasis provided.

There being no other objections to or rejections of the claims, Applicant respectfully submits that claims 1-3, 5-25, and 27-33 may be passed to allowance.

Respectfully submitted,

By: _____
Steven G. Parmelee
Registration No. 28,790

Date: October 24, 2006

FITCH, EVEN, TABIN & FLANNERY
120 South LaSalle, Suite 1600
Chicago, Illinois 60603-3406
Telephone: (312) 577-7000
Facsimile: (312) 577-7007

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CROSLAND, DONNIE L	

ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/447,663	FITZGIBBON, JAMES J.	
	Examiner	Art Unit	
	DONNIE L. CROSLAND	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-25 and 27-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-25 and 27-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3-20-06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6, 9, 10, 12, 15, 17-19, 22, 25, 29, 30, 32, and 33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Morris or Chang, newly cited.

Morris shows the movable barrier operator 112 that includes a controller 18 having a plurality of potential operational status conditions, defined at least in part by a plurality of operating states 12, 14, 16, 48; a movable barrier interface that includes magnetic sensor 16 that is operatively coupled to the controller, and a wireless status condition data transmitter, col. 4, lines 42-44, that transmits a status condition signal that corresponds to a present operational status condition defined at least in part, by at least two operating states from the plurality of operating states, see col. 5, lines 5-13 and 37-55.

Chang shows the movable barrier operator comprising a controller having plural operating states as defined by the movable barrier interface sensor 20 wherein a wireless transmitter 51 transmits the status signals to a remotely located receiver, see figure 5. Plural operating states are defined by angle sensor 20, see col. 2, lines 53-65.

With respect to the broadly recited controller, such could also read on the controller for the movable barrier in each reference whereby the sensed position is relayed to the computer and then the radio transmitter.

The recited identifier as recited in claims 32 and 33 reads on the distinguished signals in col. 3 of Chang and the tuning of the radio frequency signal of Morris (frequency modulation is equivalent to the identifier.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 7, 8, 21, 23, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Morris or Chang.

The use of an infrared or a sonic based transmitter would be a matter of choice with respect to design and the artisan would find it a matter of routine to use infrared or sonic for the transmission of information or data instead of radio in either reference.

Infrared and sonic transmission of data is commonly employed in radio remote control systems as evidenced in such systems such as remote controllers for televisions and appliances.

Patentable invention is not involved in the use of either infrared or sonic for radio for the transmission of data in either reference since such technology is well known and conventional.

Claims 5, 11, 16, 20, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang and Morris in view of Suman and Duhame..

Duhame provides for wireline 30a to receiver 60 as shown in figure 3.

It would have been obvious to one having ordinary skill in the art to employ such wireline in either Chang or Morris because Duhame shows the specific use of such in a barrier monitoring system.

Suman shows the learn feature for a movable barrier. It would have been obvious to one having ordinary skill in the art to provide the learn feature for the movable barriers of either Chang or Morris because the use of a learn mode feature in a movable barrier is suggested by Suman et al.

The recited vacation mode and the detecting features would have been obvious to the skilled artisan since conventional readers for vehicles are conventional and well known.

The at least one of is clearly shown by Morris and Chang, for instance moving the movable barrier in a first direction.

Claims 13, 14, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang or Morris in view of Peterson.

Peterson shows a movable barrier apparatus and includes status signals being transmitted in response to a query signal, see paragraph 0029. It would have been

obvious to one having ordinary skill in the art to automatically cause the wireless status signal to be transmitter in response to a first predetermined signal (inquiry or query) in either Morris or Chang in a manner as suggested by Peterson.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang or Morris.

The recite plurality constitutes a duplication of parts and such would not involve patentable invention when only duplication of function results.

It would have been obvious to one having ordinary skill in the art to duplicate the peripherals for duplicated effect in either Morris or Chang.

Response to Arguments

Applicant's arguments filed 4-25-06 have been fully considered but they are not persuasive. Applicant argues that Morris or Chang 1) does not disclose a movable barrier interface within its positioning monitoring system that can provide an interface "which serves to selectively impart motion to the movable barrier to cause the movable barrier to move,"; 2) does not contain an identifier (status condition signal that corresponds to at least one of the two operating states.

The recited "movable barrier interface that is operably coupled to the controller" clearly reads on the garage unit 112 which includes the conventional and inherent motor for door movement and operably coupled to a controller 18, see figures 1-4, col. 2, lines 43-67, col. 3, lines 1-16, col. 4, lines 5-51 of Morris.

Morris shows the identifier (status condition signal that corresponds to at least one of the two operating states) as a unique indicator that identifies the state (open/close) of the garage door, col. 3, lines 1-14, 45-49, col. 4, lines 5-44.

Chang shows the movable barrier interface 20 for movable barrier 12, the interface 20 being operably connected to a controller 52, figures 5 and 7.

Chang further discloses an identifier (status condition signal that corresponds to at least one of the two operating states) as a unique indicator that identifies the position of the garage door, col. 1, lines 50-65, col. 2, lines 1-10, table in col. 4.

Conclusion

In conclusion it is submitted that Morris and Chang clearly shows a controller that interfaces a movable barrier in the form of a garage door and monitors the operational status (open or close of garage door) as well as another parameter such as battery in Chang and smoke in Morris, wherein the controller in response to an operational status signal of the movable barrier (garage door) operates a radio transmitter to wirelessly transmit the status signal to a receiver which receiver clearly indicates at least one of two operating states (open and close position of the garage door) from the plurality of operating states, the plurality of operating states shown as 12, 14, 48 in figure 1 of Morris and the plural operating states as defined by the angle sensor 20 of Chang.

In each reference the recited "movable barrier interface" is no more that the any connection from the garage door to the controller. Such connection serves as an interface.

In each reference, the unique identification (visual) of the position (open/close) of the garage door reads on "uniquely identifies".

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DONNIE L. CROSLAND whose telephone number is 571-272-2980. The examiner can normally be reached on Mon-Thur. 9:30a-6:00p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL HORABIK can be reached on 571-272-3068. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DONNIE L. CROSLAND
Primary Examiner
Art Unit 2612

DLC
7-6-06

Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Previously Presented) A movable barrier operator comprising:

- a controller having a plurality of potential operational status conditions defined, at least in part, by a plurality of operating states;

- a movable barrier interface that is operably coupled to the controller;

- a wireless status condition data transmitter that is operably coupled to the controller, wherein the wireless status condition data transmitter transmits a status condition signal that corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states such that at least one, but not all, of the at least two operating states substantially uniquely identifies the movable barrier operator.

2. (Original) The movable barrier operator of claim 1 and further comprises at least one condition status sensor that is operably coupled to the controller.

3. (Original) The movable barrier operator of claim 2 wherein the wireless status condition data transmitter transmits data that corresponds to the at least one condition status sensor.

4. (canceled).

5. (Previously Presented) The movable barrier operator of claim 1 wherein the plurality of operating states includes at least one of:

- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;

- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- a lighting status change;
- a vacation mode status change;
- detecting a likely proximal presence of a vehicle;
- detecting the identification of a proximal vehicle; and
- receiving an operating parameter alteration signal.

6. (Original) The movable barrier operator of claim 1 wherein the wireless status condition data transmitter comprises a radio frequency carrier-based transmitter.

7. (Original) The movable barrier operator of claim 1 wherein the wireless status condition data transmitter comprises an infrared carrier-based transmitter.

8. (Original) The movable barrier operator of claim 1 wherein the wireless status condition data transmitter comprises a sonic carrier-based transmitter.

9. (Original) The movable barrier operator of claim 1 wherein the controller includes transmitter control means for automatically causing the wireless status condition data transmitter to transmit a data signal.

10. (Original) The movable barrier operator of claim 9 wherein the transmitter control means automatically causes the wireless status condition data transmitter to transmit the status condition data signal in response to detecting at least a first predetermined condition.

11. (Original) The movable barrier operator of claim 10 wherein the first predetermined condition comprises at least one of the controller:
- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;

- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- receiving an operating parameter alteration signal;
- expiration of a predetermined duration of time; and
- attainment of a predetermined point in time.

12. (Original) The movable barrier of claim 1 and further comprising a receiver that is operably coupled to the controller.

13. (Original) The movable barrier operator of claim 12 wherein the controller includes transmitter control means for automatically causing the wireless status condition data transmitter to transmit a status condition data signal in response to the receiver receiving at least a first predetermined signal.

14. (Original) The movable barrier operator of claim 13 wherein the wireless data transmitter comprises an infrared carrier-based transmitter and the receiver comprises a radio frequency carrier-based receiver.

15. (Currently Amended) A method comprising:

at a movable barrier operator:

- detecting at least one predetermined condition as corresponds to a present operational status defined, at least in part, by at least two operating states, of the movable barrier operator;

- in response to detecting the at least one predetermined condition, automatically wirelessly transmitting a status condition signal that represents the present operational status defined, at least in part, by the at least two operating states such that at least one ~~of the at least~~, but not all, of the at least two operating states substantially uniquely identifies the movable barrier operator.

16. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes detecting at least one of:

- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- a lighting status change;
- a vacation mode status change;
- detecting a likely proximal presence of a vehicle; and
- receiving an operating parameter alteration signal.

17. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes:

- monitoring a plurality of operational status conditions;
- detecting the at least one predetermined condition when any of the plurality of operational status conditions occurs.

18. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes at least one of:

- receiving sensor information from a sensor that senses the at least one predetermined condition; and
- monitoring an operating state of the movable barrier operator.

19. (Original) The method of claim 15 wherein automatically wirelessly transmitting a status condition signal includes automatically wirelessly transmitting a status condition signal using at least one of:
- a radio frequency carrier;
- a sonic carrier; and
- an optical carrier.

20. (Original) The method of claim 19 and further comprising also using a wireline connection to transmit at least a portion of the status condition signal.

21. (Original) The method of claim 15 wherein automatically wirelessly transmitting a status condition signal includes automatically wirelessly transmitting a status condition signal that includes an identifier that corresponds to the movable barrier operator.

22. (Original) The method of claim 15 and further comprising:
at a remote peripheral apparatus:
- receiving the status condition signal;
- in response to receiving the status condition signal, effecting a predetermined action that corresponds to the status condition signal.

23. (Original) The method of claim 22 wherein the predetermined action includes at least one of:
- activating a light;
- deactivating a light;
- activating an audible alarm;
- deactivating an audible alarm;
- manipulating a locking mechanism;
- providing a corresponding information display;
- allowing remote modification of configuration variables; and
- initiating a timing mechanism.

24. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes receiving a wireless signal that includes, at least in part, an inquiry signal.

25. (Previously Presented) An apparatus comprising:

- a movable barrier operator having:

- a controller having a plurality of potential operational status conditions defined, at least in part, by a plurality of operating states; and

- a wireless status condition transmitter operably coupled to the controller, wherein the wireless status condition data transmitter transmits a status condition signal that corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states such that at least one, but not all, of the at least two operating states substantially uniquely identifies the movable barrier operator;

- a remote peripheral having:

- a wireless receiver that is communicatively compatible with the wireless transmitter;

- a peripheral controller that is operably coupled to the wireless receiver.

26. (canceled).

27. (Previously Presented) The apparatus of claim 25 wherein the plurality of operating states includes at least one of:

- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- a lighting status change;
- a vacation mode status change;

detecting a likely proximal presence of a vehicle; and

- receiving an operating parameter alteration signal.

28. (Original) The apparatus of claim 25 wherein the remote peripheral comprises at least one of:

- an informational display;
- a light fixture;
- a remote access interface;
- a timer apparatus; and
- an alarm.

29. (Original) The apparatus of claim 25 wherein the movable barrier operator further includes a wireless receiver that is operably coupled to the controller.

30. (Original) The apparatus of claim 29 wherein the remote peripheral further includes a wireless transmitter that is communicatively compatible with the wireless receiver of the movable barrier operator and that is operably coupled to the peripheral controller.

31. (Original) The apparatus of claim 25 and further comprising a plurality of the remote peripherals.

32. (Original) The apparatus of claim 25 wherein the peripheral controller includes reception means for determining when a wireless signal as received from the movable barrier operator includes an identifier that corresponds to the movable barrier operator.

33. (Original) The apparatus of claim 32 wherein the reception means further provides a first control signal when the wireless signal does include the identifier and does not provide the first control signal when the wireless signal does not include the identifier.

REMARKS

Pursuant to the above-noted Office Action, claims 1-3, 5-25, and 27-33 are pending in the present application. Claims 15-24 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 1-3, 6, 9, 10, 12, 15, 17-19, 22, 25, 29, 30, 32, and 33 are rejected under 35 U.S.C. §102(b) on the basis of either Morris (U.S. Patent No. 6,184,787) ("Morris") or Chang (U.S. Patent No. 5,798,681) ("Chang"). Claims 7, 8, 21, 23, and 28 are rejected under 35 U.S.C. §103(a) as being unpatentable over either Morris or Chang. Claims 5, 11, 16, 20, and 27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Morris or Chang in view of Suman (U.S. Patent No. 5,903,226) ("Suman") and Duhame (U.S. Patent No. 4,464,651) ("Duhame"). Claims 13, 14, and 24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Morris or Chang in view of Peterson (U.S. Publication No. 2004/0212498) ("Peterson"). Claim 31 is rejected under 35 U.S.C. §103(a) as being unpatentable over Morris or Chang. The Applicant respectfully traverses these rejections and requests reconsideration.

Claims 15-24 were rejected under 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter of Applicant's invention. Independent claim 15 has been amended to correct this problem by changing "of the at least, but not all, two operating states" to "but not all, of the at least two operating states." Claims 16-24 are dependent upon claim 15, and as a result of the amendment to claim 15 are therefore in an allowable form.

Claims 1-3, 6, 9, 10, 12, 15, 17-19, 22, 25, 29, 30, 32 and 33 are rejected under 35 U.S.C. §102(b) on the basis of Morris or Chang. Morris discloses a controller 18 that receives a signal from sensors (12, 14, 16, 48), sends that signal to a voice synthesizer 20 which in turn sends the signal to a speaker 22 that announces an audible warning. One embodiment in Morris discloses a garage unit 112 which transmits the state of switches as detected by the sensors to the house unit 140 via a radio frequency link, where the house unit 140 in response either displays the status on an LCD display or provides an audible warning through a speaker. The garage unit 112 consists of only a controller and sensors that detect the state of on/off switches and the temperature. (See Column 4, Lines 16-18). The garage unit comprises at least three sensors and a controller that receives signals from the sensors only when a predetermined limit is met or exceeded. If the predetermined limit is not met,

then there is no signal transmitted from the sensor to the controller. When the signal is received by the controller (i.e., the limit is met), the controller then transmits the signal to the house unit 140 or voice synthesizer 20 as instructions. (See Morris, Column 2, Lines 50-53).

Although Morris provides teachings with respect to transmitting signals to a receiver, the Applicant also respectfully observes that there are significant differences between the teachings of Morris and those of the Applicant. Applicant's movable barrier operator comprises a controller, a movable barrier interface, and a wireless status condition data transmitter. Furthermore, at least one of the operating states, but not all, identifies the movable barrier operator from which the signal originated. Morris does not contain such an identifier nor a separate transmitter and controller (Morris discloses a controller that transmits the signals directly to the receiver). Morris also does not disclose a movable barrier interface within its position monitoring system that can provide an interface which "serves to selectively impart motion to the movable barrier to cause the movable barrier to move," as with Applicant's interface. (See application, page 5, lines 13-19).

Applicant's substantially unique identifier is part of at least one of the status condition signals that are sent from the transmitter to the receiver. The identifier signal identifies the movable barrier operator to the receiver so that the receiver recognizes from where the signal originated. There is nothing in Morris (at Column 3) to suggest that the instructions provided by the voice synthesizer 20 to the speaker 22 are unique identifiers or instructions, as the Examiner suggests. In fact, Morris only says that the voice synthesizer 20 "provides a signal to audio speaker," (see Column 3, Lines 1-3, 23-24, and 65-66) nothing is disclosed or suggested in Morris as to the signal being a unique identifier for the controller or for the position monitoring system, as is the case with Applicant's identifier.

These differences are also well reflected in the claims. For example, claim 1 provides for a controller, a movable barrier interface and a wireless status condition data transmitter, where both of the latter two are coupled to the controller. Additionally, claim 1 provides "a present operational status condition defined ... by at least two operating states ... such that at least one, but not all, of the at least two operating states ... identifies the movable barrier operator." Morris lacks any teachings or suggestions in this regard, and more particularly lacks any teachings or suggestions as to the RF link signal containing at least two operating states where at least one, but not all, contains an identifier substantially unique to the

movable barrier operator. Morris further lacks a movable barrier interface. Therefore, Applicant respectfully submits that Morris cannot be viewed as anticipating claim 1.

Claims 2, 3, 6, 9, 10, and 12 are dependent upon claim 1, which claim has been shown allowable above. In addition, these claims introduce additional subject matter that, particularly when considered in context with the claims from which they depend, constitutes incremental patentable content. Applicant reserves the right to present further arguments in the future with regard to these dependent claims in the event that their corresponding independent claims are found to be unpatentable. For all these reasons, the Applicant respectfully submits that dependent claims 2, 3, 6, 9, 10, and 12 may be passed to allowance.

Independent claims 15 and 25 have also been rejected under §102 (b) given Morris. Amended claim 15 is a method claim that provides for a method of detecting at least a condition defined by at least two operating states, where at least one operating state, but not all, contains an identifier that is substantially unique to the movable barrier operator. Claim 25 is similar to claim 1 except for the additional element of a remote peripheral having a wireless receiver compatible with the wireless transmitter and a peripheral controller coupled to the receiver. Since both independent claims 15 and 25 contain similar language as independent claim 1, and claim 1 has been shown allowable above, claims 15 and 25 are also allowable for the same reasons, even with the additional elements added.

Claims 17-19 and 22 are dependent upon claim 15 and claims 29, 30, 32, and 33 are dependent upon claim 25, both of which have been shown allowable above. In addition, these claims introduce additional subject matter that, particularly when considered in context with the claims from which they depend, constitutes incremental patentable content. Applicant reserves the right to present further arguments in the future with regard to these dependent claims in the event that their corresponding independent claims are found to be unpatentable. For all these reasons, the Applicant respectfully submits that dependent claims 17-19, 22, 29, 30, 32, and 33 may be passed to allowance.

Turning now to Chang, Chang discloses a garage door position indicator which consists of a transmitter unit attached to the garage door and a receiving unit. The transmitter unit contains an electronic angle sensor 20 coupled with a microprocessor 52 which reads signals from the angle sensor 20 and sends corresponding RF signals through an RF transmitter 51 to a receiving unit 70. The receiving unit 70 contains a microprocessor 62 which responds according to the signal received to control a visual and audio output 65.

Applicant respectfully observes that there are significant differences between the teachings of Chang and those of the Applicant. For example, Chang lacks a status condition signal defined by at least two operating states where at least one, but not all, contain a substantially unique identifier of a movable barrier operator. The operating states of Chang (i.e., door ¼ open, door ½ open, etc.) do not also contain a substantially unique identifier with at least one, but not all, of the operating states that identifies the unit it is transmitted from. Furthermore, the visual/audio indicator 65 is not a substantially unique identifier of the transmitting unit, as the Examiner suggests, but rather merely an output response to the signal received at the receiver unit. (This can be seen at Column 4, Lines 29-54.) There is no suggestion in Chang that the RF signal sent from the transmitter 51 to the receiver 61 contains a substantially unique identifier within the RF signal to identify the transmitting unit 11, as is necessary with Applicant's signal. Chang responds to the signals received by turning on the appropriate LED and audio message at its visual/audio indicator 65 based on which message the signal transmits to it. Therefore, the visual/audio indicator 65 clearly does not function as a unique identifier but rather is controlled by the microprocessor 62 to output a response per the instructions received. (Column 4, Lines 13-18).

Furthermore, the transmitting unit 11 in Chang does not contain a movable barrier interface that "serves to selectively impart motion to the movable barrier to cause the movable barrier to move," as with Applicant's interface. (See application, page 5, lines 13-19). Rather, Chang utilizes an electronic angle sensor 20 that is attached to the door and outputs signals to the controller that transmits the door's position, but does not serve to *cause* the door to move. Applicant's movable barrier interface is controlled by the controller and operates to open the door; the electronic sensor 20 does not serve such a function.

These differences are also well reflected in the claims. For example, claim 1 provides for a controller, a movable barrier interface and a wireless status condition data transmitter, where both of the latter two are coupled to the controller. Additionally, claim 1 provides "a present operational status condition defined ... by at least two operating states ... such that at least one, but not all, of the at least two operating states ... identifies the movable barrier operator." Chang lacks any teachings or suggestions in this regard. Chang does not disclose or suggest a movable barrier interface or a status condition signal containing at least two operating states where at least one, but not all, contains an identifier substantially unique to the movable barrier operator. Moreover, Chang's controller requires a sensor to operate.

Therefore, Applicant respectfully submits that Chang cannot be viewed as anticipating claim 1.

Claims 2, 3, 6, 9, 10, and 12 are dependent upon claim 1, which claim has been shown allowable above. In addition, these claims introduce additional subject matter that, particularly when considered in context with the claims from which they depend, constitutes incremental patentable content. Applicant reserves the right to present further arguments in the future with regard to these dependent claims in the event that their corresponding independent claims are found to be unpatentable. For all these reasons, the Applicant respectfully submits that dependent claims 2, 3, 6, 9, 10, and 12 may be passed to allowance.

Independent claims 15 and 25 have also been rejected under §102 (b) given Chang. Although claim 25 includes the added element of a remote peripheral (i.e., receiver), Chang still does not anticipate this claim because Chang is missing the other elements of claim 25, namely those elements that are also in claim 1. As mentioned above in regards to Morris, both independent claims 15 and 25 contain similar language as independent claim 1, and claim 1 has been shown allowable above, therefore claims 15 and 25 are also allowable for the same reasons.

Claims 17-19 and 22 are dependent upon claim 15 and claims 29, 30, 32, and 33 are dependent upon claim 25, both of which have been shown allowable above. In addition, these claims introduce additional subject matter that, particularly when considered in context with the claims from which they depend, constitutes incremental patentable content. Applicant reserves the right to present further arguments in the future with regard to these dependent claims in the event that their corresponding independent claims are found to be unpatentable. For all these reasons, the Applicant respectfully submits that dependent claims 17-19, 22, 29, 30, 32, and 33 may be passed to allowance.

Claims 7-8, 21, 23, and 28 are rejected under 35 U.S.C. §103(a) as being unpatentable over either Morris or Chang. Claims 5, 11, 16, 20, and 27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Chang and Morris in view of Suman and Duhame. Claims 13, 14, and 24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Chang or Morris in view of Peterson. Claim 31 is rejected under 35 U.S.C. §103(a) as being unpatentable over Chang or Morris. Claims 5, 7-8, 11, and 13-14 are dependent upon claim 1, claims 16, 20-21, and 23-24 are dependent upon claim 15, and claims 27-28, and 31 are dependent upon claim 25, all three of which have been shown to be allowable above over

Morris and/or Chang. In view of the arguments presented above pertaining to Chang and Morris, and seeing how each §103(a) rejection contains a reference to Chang and/or Morris, Applicant respectfully submits that dependent claims 5, 7-8, 11, 13-14, 16, 20-21, 23-24, 27-28, and 31 may be passed to allowance.

There being no other objections to or rejections of the claims, Applicant respectfully submits that claims 1-3, 5-25, and 27-33 may be passed to allowance.

Respectfully submitted,

By: _____

Steven G. Parmelee
Registration No. 28,790

Date: April 20, 2006

FITCH, EVEN, TABIN & FLANNERY
120 South LaSalle, Suite 1600
Chicago, Illinois 60603-3406
Telephone: (312) 577-7000
Facsimile: (312) 577-7007

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/447,663	05/29/2003	James J. Fitzgibbon	73857	2458

22242 7590 02/17/2006

FITCH EVEN TABIN AND FLANNERY
120 SOUTH LA SALLE STREET
SUITE 1600
CHICAGO, IL 60603-3406

EXAMINER	
CROSLAND, DONNIE L	

ART UNIT	PAPER NUMBER
2636	

DATE MAILED: 02/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/447,663	FITZGIBBON, JAMES J.	
	Examiner	Art Unit	
	DONNIE L. CROSLAND	2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-25 and 27-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3, 5-25, AND 27-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12-07-05 has been entered.

Claim Rejections - 35 USC § 112

Claims 15-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 15, the language "one of the at least, but not all, two operating states" is indefinite and incomplete sentence structure. The language should be consistent with the language already used in the other claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6, 9, 10, 12, 15, 17-19, 22, 25, 29, 30, 32, and 33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Morris or Chang, newly cited.

Morris shows the movable barrier operator 112 that includes a controller 18 having a plurality of potential operational status conditions, defined at least in part by a plurality of operating states 12, 14, 16, 48; a movable barrier interface that includes magnetic sensor 16 that is operatively coupled to the controller, and a wireless status condition data transmitter, col. 4, lines 42-44, that transmits a status condition signal that corresponds to a present operational status condition defined at least in part, by at least two operating states from the plurality of operating states, see col. 5, lines 5-13 and 37-55.

Chang shows the movable barrier operator comprising a controller having plural operating states as defined by the movable barrier interface sensor 20 wherein a wireless transmitter 51 transmits the status signals to a remotely located receiver, see figure 5. Plural operating states are defined by angle sensor 20, see col. 2, lines 53-65.

With respect to the broadly recited controller, such could also read on the controller for the movable barrier in each reference whereby the sensed position is relayed to the computer and then the radio transmitter.

The recited identifier as recited in claims 32 and 33 reads on the distinguished signals in col. 3 of Chang and the tuning of the radio frequency signal of Morris (frequency modulation is equivalent to the identifier.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 7, 8, 21, 23, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Morris or Chang.

The use of an infrared or a sonic based transmitter would be a matter of choice with respect to design and the artisan would find it a matter of routine to use infrared or sonic for the transmission of information or data instead of radio in either reference.

Infrared and sonic transmission of data is commonly employed in radio remote control systems as evidenced in such systems such as remote controllers for televisions and appliances.

Patentable invention is not involved in the use of either infrared or sonic for radio for the transmission of data in either reference since such technology is well known and conventional.

Claims 5, 11, 16, 20, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang and Morris in view of Suman and Duhame..

Duhame provides for wireline 30a to receiver 60 as shown in figure 3.

It would have been obvious to one having ordinary skill in the art to employ such wireline in either Chang or Morris because Duhame shows the specific use of such in a barrier monitoring system.

Suman shows the learn feature for a movable barrier. It would have been obvious to one having ordinary skill in the art to provide the learn feature for the movable barriers of either Chang or Morris because the use of a learn mode feature in a movable barrier is suggested by Suman et al.

The recited vacation mode and the detecting features would have been obvious to the skilled artisan since conventional readers for vehicles are conventional and well known.

The at least one of is clearly shown by Morris and Chang, for instance moving the movable barrier in a first direction.

Claims 13, 14, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang or Morris in view of Peterson.

Peterson shows a movable barrier apparatus and includes status signals being transmitted in response to a query signal, see paragraph 0029. It would have been obvious to one having ordinary skill in the art to automatically cause the wireless status signal to be transmitter in response to a first predetermined signal (inquiry or query) in either Morris or Chang in a manner as suggested by Peterson.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang or Morris.

The recite plurality constitutes a duplication of parts and such would not involve patentable invention when only duplication of function results.

It would have been obvious to one having ordinary skill in the art to duplicate the peripherals for duplicated effect in either Morris or Chang.

Response to Arguments

Applicant's arguments filed 12-07-05 have been fully considered but they are not persuasive. The added language "such that at least one, but not all, of the at two operating states substantially uniquely identifies the movable barrier operator" clearly reads on the unique identification 65 and col. 4, lines 36-54 of Chang and the unique instructions provided by the voice synthesizer 20, col. 3 of Morris.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DONNIE L. CROSLAND whose telephone number is 571-272-2980. The examiner can normally be reached on Mon-Fri, 9:30a-6:00p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JEFFERY HOFSASS can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DONNIE L. CROSLAND
Primary Examiner
Art Unit 2636

DLC
2-15-06

Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Currently Amended) A movable barrier operator comprising:

- a controller having a plurality of potential operational status conditions defined, at least in part, by a plurality of operating states;

- a movable barrier interface that is operably coupled to the controller;

- a wireless status condition data transmitter that is operably coupled to the controller, wherein the wireless status condition data transmitter transmits a status condition signal that corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states such that at least one, but not all, of the at least two operating states substantially uniquely identifies the movable barrier operator.

2. (Original) The movable barrier operator of claim 1 and further comprises at least one condition status sensor that is operably coupled to the controller.

3. (Original) The movable barrier operator of claim 2 wherein the wireless status condition data transmitter transmits data that corresponds to the at least one condition status sensor.

4. (canceled).

5. (Currently Amended) The movable barrier operator of claim ~~4~~ 1 wherein the plurality of operating states includes at least one of:

- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;

- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- a lighting status change;
- a vacation mode status change;
- detecting a likely proximal presence of a vehicle;
- detecting the identification of a proximal vehicle; and
- receiving an operating parameter alteration signal.

6. (Original) The movable barrier operator of claim 1 wherein the wireless status condition data transmitter comprises a radio frequency carrier-based transmitter.

7. (Original) The movable barrier operator of claim 1 wherein the wireless status condition data transmitter comprises an infrared carrier-based transmitter.

8. (Original) The movable barrier operator of claim 1 wherein the wireless status condition data transmitter comprises a sonic carrier-based transmitter.

9. (Original) The movable barrier operator of claim 1 wherein the controller includes transmitter control means for automatically causing the wireless status condition data transmitter to transmit a data signal.

10. (Original) The movable barrier operator of claim 9 wherein the transmitter control means automatically causes the wireless status condition data transmitter to transmit the status condition data signal in response to detecting at least a first predetermined condition.

11. (Original) The movable barrier operator of claim 10 wherein the first predetermined condition comprises at least one of the controller:
- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;

- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- receiving an operating parameter alteration signal;
- expiration of a predetermined duration of time; and
- attainment of a predetermined point in time.

12. (Original) The movable barrier of claim 1 and further comprising a receiver that is operably coupled to the controller.

13. (Original) The movable barrier operator of claim 12 wherein the controller includes transmitter control means for automatically causing the wireless status condition data transmitter to transmit a status condition data signal in response to the receiver receiving at least a first predetermined signal.

14. (Original) The movable barrier operator of claim 13 wherein the wireless data transmitter comprises an infrared carrier-based transmitter and the receiver comprises a radio frequency carrier-based receiver.

15. (Currently Amended) A method comprising:

at a movable barrier operator:

- detecting at least one predetermined condition as corresponds to a present operational status defined, at least in part, by at least two operating states, of the movable barrier operator;

- in response to detecting the at least one predetermined condition, automatically wirelessly transmitting a status condition signal that represents the present operational status defined, at least in part, by the at least two operating states <u>such that at least one of the at least, but not all, two operating states substantially uniquely identifies the movable barrier operator</u>.

16. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes detecting at least one of:

- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- a lighting status change;
- a vacation mode status change;
- detecting a likely proximal presence of a vehicle; and
- receiving an operating parameter alteration signal.

17. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes:

- monitoring a plurality of operational status conditions;
- detecting the at least one predetermined condition when any of the plurality of operational status conditions occurs.

18. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes at least one of:

- receiving sensor information from a sensor that senses the at least one predetermined condition; and
- monitoring an operating state of the movable barrier operator.

19. (Original) The method of claim 15 wherein automatically wirelessly transmitting a status condition signal includes automatically wirelessly transmitting a status condition signal using at least one of:
- a radio frequency carrier;
- a sonic carrier; and
- an optical carrier.

20. (Original) The method of claim 19 and further comprising also using a wireline connection to transmit at least a portion of the status condition signal.

21. (Original) The method of claim 15 wherein automatically wirelessly transmitting a status condition signal includes automatically wirelessly transmitting a status condition signal that includes an identifier that corresponds to the movable barrier operator.

22. (Original) The method of claim 15 and further comprising:
at a remote peripheral apparatus:
- receiving the status condition signal;
- in response to receiving the status condition signal, effecting a predetermined action that corresponds to the status condition signal.

23. (Original) The method of claim 22 wherein the predetermined action includes at least one of:
- activating a light;
- deactivating a light;
- activating an audible alarm;
- deactivating an audible alarm;
- manipulating a locking mechanism;
- providing a corresponding information display;
- allowing remote modification of configuration variables; and
- initiating a timing mechanism.

24. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes receiving a wireless signal that includes, at least in part, an inquiry signal.

25. (Currently Amended) An apparatus comprising:

- a movable barrier operator having:

- a controller having a plurality of potential operational status conditions defined, at least in part, by a plurality of operating states; and

- a wireless status condition transmitter operably coupled to the controller, wherein the wireless status condition data transmitter transmits a status condition signal that corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states such that at least one, but not all, of the at least two operating states substantially uniquely identifies the movable barrier operator;

- a remote peripheral having:

- a wireless receiver that is communicatively compatible with the wireless transmitter;

- a peripheral controller that is operably coupled to the wireless receiver.

26. (canceled).

27. (Currently Amended) The apparatus of claim ~~26~~ 25 wherein the plurality of operating states includes at least one of:

- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- a lighting status change;

- a vacation mode status change;

detecting a likely proximal presence of a vehicle; and

- receiving an operating parameter alteration signal.

28. (Original) The apparatus of claim 25 wherein the remote peripheral comprises at least one of:

- an informational display;
- a light fixture;
- a remote access interface;
- a timer apparatus; and
- an alarm.

29. (Original) The apparatus of claim 25 wherein the movable barrier operator further includes a wireless receiver that is operably coupled to the controller.

30. (Original) The apparatus of claim 29 wherein the remote peripheral further includes a wireless transmitter that is communicatively compatible with the wireless receiver of the movable barrier operator and that is operably coupled to the peripheral controller.

31. (Original) The apparatus of claim 25 and further comprising a plurality of the remote peripherals.

32. (Original) The apparatus of claim 25 wherein the peripheral controller includes reception means for determining when a wireless signal as received from the movable barrier operator includes an identifier that corresponds to the movable barrier operator.

33. (Original) The apparatus of claim 32 wherein the reception means further provides a first control signal when the wireless signal does include the identifier and does not provide the first control signal when the wireless signal does not include the identifier.

REMARKS

I. Introduction

Pursuant to the above-noted Office Action, claims 5 and 27 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 1-3, 6, 9, 10, 12, 13, 15, 17-19, 22, 25, 29, 30, 32, and 33 are rejected under 35 U.S.C. § 102(b) on the basis of either Morris (U.S. Patent No. 6,184,787) ("Morris") or Chang (U.S. Patent No. 5,798,681) ("Chang"). Claims 7, 8, 21, 23, and 28 are rejected under 35 U.S.C. § 103(a) over either Morris or Chang. Claims 5, 11, 16, 20, and 27 are rejected under 35 U.S.C. § 103(a) over Morris or Change in view of Suman and Duhame. Claims 13, 14, and 24 are rejected under 35 U.S.C. § 103(a) over Morris or Chang in view of Peterson (U.S. Publication No. 2004/0212498) ("Peterson"). Claim 31 is rejected under 35 U.S.C. § 103(a) over Morris or Chang. Applicant respectfully amends the claims and requests reconsideration.

II. §102 and §103 Rejections of Claims 1-3, 5-25, and 27-31

A. Independent claims 1, 15, and 25

Independent claims 1, 15, and 25 have been rejected under 35 U.S.C. § 102(a) on the basis of Morris or Chang. In response, Applicant amends independent claims 1, 15, and 25 to overcome the cited reference and respectfully traverses. Moreover, Applicant respectfully submits that since the added features are described on page 4, lines 11-15 and page 10, lines 12-28 of the patent application, there is no new matter being added with these proposed amendments. Applicant, thus, respectfully requests that the amendments to the claims be entered. Specifically, Applicant respectfully submits that none of the cited references discloses, teaches, or suggests the feature of a transmission of a status condition signal that corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states such that at least one, but not all, of the at least two operating states substantially uniquely identifies the movable barrier operator, as required in independent claims 1, 15, and 25. For all these reasons, Applicant respectfully submits that independent claims 1, 15, and 25, as amended, are distinguishable from cited references and requests that the rejections of independent claims 1, 15, and 25 be withdrawn.

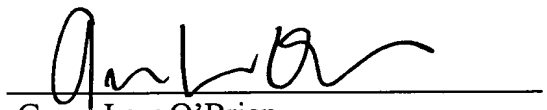
B. Dependent claims 2-14, 16-24, and 26-33

Dependent claims 2-3, 5-14, 16-24, and 27-33 ultimately depend respectively upon independent claims 1, 15, and 25, which have been shown to be allowable above. Moreover, they introduce additional content that, particularly when considered in context with the claims from which they depend, comprises additional incremental patentable subject matter. Applicant reserves the right to present further arguments in the future with regard to these dependent claims in the event that their corresponding independent claims are found to be unpatentable. For all these reasons, Applicant respectfully submit that claims 2-3, 5-14, 16-24, and 27-33 may be passed to allowance.

C. Conclusion

There being no other objections to or rejections of the claims, Applicants respectfully submit that claims 1-3, 5-25, and 27-33 may be passed to allowance.

Respectfully submitted,

By: 
Grace Law O'Brien
Registration No. 48,872

Date: December 5, 2005

FITCH, EVEN, TABIN & FLANNERY
120 South LaSalle, Suite 1600
Chicago, Illinois 60603-3406
Telephone: (312) 577-7000
Facsimile: (312) 577-7007

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22242 7590 09/02/2005

FITCH EVEN TABIN AND FLANNERY
120 SOUTH LA SALLE STREET
SUITE 1600
CHICAGO, IL 60603-3406

EXAMINER	
CROSLAND, DONNIE L	
ART UNIT	**PAPER NUMBER**
2636	

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/447,663	FITZGIBBON, JAMES J.	
	Examiner	Art Unit	
	DONNIE L. CROSLAND	2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5-25 and 27-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-25 and 27-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8-4-05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claims 5 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims depend from a canceled claim rendering the claims incomplete.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6, 9, 10, 12, 15, 17-19, 22, 25, 29, 30, 32, and 33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by either Morris or Chang, newly cited.

Morris shows the movable barrier operator 112 that includes a controller 18 having a plurality of potential operational status conditions, defined at least in part by a plurality of operating states 12, 14, 16, 48; a movable barrier interface that includes magnetic sensor 16 that is operatively coupled to the controller, and a wireless status condition data transmitter, col. 4, lines 42-44, that transmits a status condition signal that corresponds to a present operational status condition defined at least in part, by at

least two operating states from the plurality of operating states, see col. 5, lines 5-13 and 37-55.

Chang shows the movable barrier operator comprising a controller having plural operating states as defined by the movable barrier interface sensor 20 wherein a wireless transmitter 51 transmits the status signals to a remotely located receiver, see figure 5. Plural operating states are defined by angle sensor 20, see col. 2, lines 53-65.

With respect to the broadly recited controller, such could also read on the controller for the movable barrier in each reference whereby the sensed position is relayed to the computer and then the radio transmitter.

The recited identifier as recited in claims 32 and 33 reads on the distinguished signals in col. 3 of Chang and the tuning of the radio frequency signal of Morris (frequency modulation is equivalent to the identifier.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 7, 8, 21, 23, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Morris or Chang.

The use of an infrared or a sonic based transmitter would be a matter of choice with respect to design and the artisan would find it a matter of routine to use infrared or sonic for the transmission of information or data instead of radio in either reference.

Infrared and sonic transmission of data is commonly employed in radio remote control systems as evidenced in such systems such as remote controllers for televisions and appliances.

Patentable invention is not involved in the use of either infrared or sonic for radio for the transmission of data in either reference since such technology is well known and conventional.

Claims 5, 11, 16, 20, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang and Morris in view of Suman and Duhame..

Duhame provides for wireline 30a to receiver 60 as shown in figure 3.

It would have been obvious to one having ordinary skill in the art to employ such wireline in either Chang or Morris because Duhame shows the specific use of such in a barrier monitoring system. .

Suman shows the learn feature for a movable barrier. It would have been obvious to one having ordinary skill in the art to provide the learn feature for the movable barriers of either Chang or Morris because the use of a learn mode feature in a movable barrier is suggested by Suman et al.

The recited vacation mode and the detecting features would have been obvious to the skilled artisan since conventional readers for vehicles are conventional and well known.

The at least one of is clearly shown by Morris and Chang, for instance moving the movable barrier in a first direction.

Claims 13, 14, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang or Morris in view of Peterson.

Peterson shows a movable barrier apparatus and includes status signals being transmitted in response to a query signal, see paragraph 0029. It would have been obvious to one having ordinary skill in the art to automatically cause the wireless status signal to be transmitter in response to a first predetermined signal (inquiry or query) in either Morris or Chang in a manner as suggested by Peterson.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang or Morris.

The recite plurality constitutes a duplication of parts and such would not involve patentable invention when only duplication of function results.

It would have been obvious to one having ordinary skill in the art to duplicate the peripherals for duplicated effect in either Morris or Chang.

Response to Arguments

Applicant's arguments with respect to claims at issue have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tsui, Kirkland et al, and Fecteau are cited as showing the radio transmission of status signals with respect to a movable barrier.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DONNIE L. CROSLAND whose telephone number is 571-272-2980. The examiner can normally be reached on Mon-Fri, 9:30a-6:00p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JEFFERY HOFSASS can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DONNIE L. CROSLAND
Primary Examiner
Art Unit 2636

Dlc
8-31-05

Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Currently amended) A movable barrier operator comprising:
- a controller having a plurality of potential operational status conditions defined, at least in part, by a plurality of operating states;
- a movable barrier interface that is operably coupled to the controller;
- a wireless status condition data transmitter that is operably coupled to the controller, wherein the wireless status condition data transmitter transmits a status condition signal that corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states.

2. (Original) The movable barrier operator of claim 1 and further comprises at least one condition status sensor that is operably coupled to the controller.

3. (Original) The movable barrier operator of claim 2 wherein the wireless status condition data transmitter transmits data that corresponds to the at least one condition status sensor.

4. (canceled).

5. (Original) The movable barrier operator of claim 4 wherein the plurality of operating states includes at least one of:
- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;

- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- a lighting status change;
- a vacation mode status change;
- detecting a likely proximal presence of a vehicle;
- detecting the identification of a proximal vehicle; and
- receiving an operating parameter alteration signal.

6. (Original) The movable barrier operator of claim 1 wherein the wireless status condition data transmitter comprises a radio frequency carrier-based transmitter.

7. (Original) The movable barrier operator of claim 1 wherein the wireless status condition data transmitter comprises an infrared carrier-based transmitter.

8. (Original) The movable barrier operator of claim 1 wherein the wireless status condition data transmitter comprises a sonic carrier-based transmitter.

9. (Original) The movable barrier operator of claim 1 wherein the controller includes transmitter control means for automatically causing the wireless status condition data transmitter to transmit a data signal.

10. (Original) The movable barrier operator of claim 9 wherein the transmitter control means automatically causes the wireless status condition data transmitter to transmit the status condition data signal in response to detecting at least a first predetermined condition.

11. (Original) The movable barrier operator of claim 10 wherein the first predetermined condition comprises at least one of the controller:
- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;

- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- receiving an operating parameter alteration signal;
- expiration of a predetermined duration of time; and
- attainment of a predetermined point in time.

12. (Original) The movable barrier of claim 1 and further comprising a receiver that is operably coupled to the controller.

13. (Original) The movable barrier operator of claim 12 wherein the controller includes transmitter control means for automatically causing the wireless status condition data transmitter to transmit a status condition data signal in response to the receiver receiving at least a first predetermined signal.

14. (Original) The movable barrier operator of claim 13 wherein the wireless data transmitter comprises an infrared carrier-based transmitter and the receiver comprises a radio frequency carrier-based receiver.

15. (Currently amended) A method comprising:
at a movable barrier operator:
- detecting at least one predetermined condition as corresponds to a present operational status defined, at least in part, by at least two operating states, of the movable barrier operator;
- in response to detecting the at least one predetermined condition, automatically wirelessly transmitting a status condition signal that represents the present operational status defined, at least in part, by the at least two operating states.

16. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes detecting at least one of:
- moving a movable barrier in a first direction;

- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- a lighting status change;
- a vacation mode status change;
- detecting a likely proximal presence of a vehicle; and
- receiving an operating parameter alteration signal.

17. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes:
- monitoring a plurality of operational status conditions;
- detecting the at least one predetermined condition when any of the plurality of operational status conditions occurs.

18. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes at least one of:
- receiving sensor information from a sensor that senses the at least one predetermined condition; and
- monitoring an operating state of the movable barrier operator.

19. (Original) The method of claim 15 wherein automatically wirelessly transmitting a status condition signal includes automatically wirelessly transmitting a status condition signal using at least one of:
- a radio frequency carrier;
- a sonic carrier; and
- an optical carrier.

20. (Original) The method of claim 19 and further comprising also using a wireline connection to transmit at least a portion of the status condition signal.

21. (Original) The method of claim 15 wherein automatically wirelessly transmitting a status condition signal includes automatically wirelessly transmitting a status condition signal that includes an identifier that corresponds to the movable barrier operator.

22. (Original) The method of claim 15 and further comprising:
at a remote peripheral apparatus:
- receiving the status condition signal;
- in response to receiving the status condition signal, effecting a predetermined action that corresponds to the status condition signal.

23. (Original) The method of claim 22 wherein the predetermined action includes at least one of:
- activating a light;
- deactivating a light;
- activating an audible alarm;
- deactivating an audible alarm;
- manipulating a locking mechanism;
- providing a corresponding information display;
- allowing remote modification of configuration variables; and
- initiating a timing mechanism.

24. (Original) The method of claim 15 wherein detecting at least one predetermined condition includes receiving a wireless signal that includes, at least in part, an inquiry signal.

25. (Currently amended) An apparatus comprising:
- a movable barrier operator having:
    - a controller having a plurality of potential operational status conditions <u>defined, at least in part, by a plurality of operating states</u>; and

- a wireless status condition transmitter operably coupled to the controller, wherein the wireless status condition data transmitter transmits a status condition signal that corresponds to a present operational status condition defined, at least in part, by at least two operating states from the plurality of operating states;

- a remote peripheral having:
  - a wireless receiver that is communicatively compatible with the wireless transmitter;
  - a peripheral controller that is operably coupled to the wireless receiver.

26. (canceled).

27. (Original) The apparatus of claim 26 wherein the plurality of operating states includes at least one of:

- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- a lighting status change;
- a vacation mode status change;

detecting a likely proximal presence of a vehicle; and

- receiving an operating parameter alteration signal.

28. (Original) The apparatus of claim 25 wherein the remote peripheral comprises at least one of:

- an informational display;
- a light fixture;
- a remote access interface;
- a timer apparatus; and
- an alarm.

29. (Original) The apparatus of claim 25 wherein the movable barrier operator further includes a wireless receiver that is operably coupled to the controller.

30. (Original) The apparatus of claim 29 wherein the remote peripheral further includes a wireless transmitter that is communicatively compatible with the wireless receiver of the movable barrier operator and that is operably coupled to the peripheral controller.

31. (Original) The apparatus of claim 25 and further comprising a plurality of the remote peripherals.

32. (Original) The apparatus of claim 25 wherein the peripheral controller includes reception means for determining when a wireless signal as received from the movable barrier operator includes an identifier that corresponds to the movable barrier operator.

33. (Original) The apparatus of claim 32 wherein the reception means further provides a first control signal when the wireless signal does include the identifier and does not provide the first control signal when the wireless signal does not include the identifier.

REMARKS

I. Introduction

Pursuant to the above-noted Office Action, claims 1-4, 6, 9, 10, 12, 13, 15, 17-19, 25, 26, and 29-31 are rejected under 35 U.S.C. § 102(b) on the basis of Doyle et al. (U.S. Patent No. 5,402,105) ("Doyle"). Claims 7, 8, 14, 21, 22, 24, 32, and 33 are rejected under 35 U.S.C. § 103(a) over Doyle. Claims 5, 11, 16, 23, 27, and 28 are rejected under 35 U.S.C. § 103(a) over Doyle in view of Suman et al. (U.S. Patent No. 5,903,226) ("Suman"). Claim 20 is rejected under 35 U.S.C. § 103(a) over Doyle in view of Duhame (U.S. Patent No. 4,464,651) ("Duhame"). Applicant respectfully traverses these rejections and requests reconsideration.

II. §102 and §103 Rejections of Claims 1 through 33

A. Independent claims 1, 15, and 25

(i) Doyle does not disclose, teach, or suggest the additional features as amended in independent claims 1, 15, and 25

Independent claims 1, 15, and 25 have been rejected under 35 U.S.C. § 102(a) on the basis of Doyle. In response, Applicant amends independent claims 1, 15, and 25 to overcome the cited reference and respectfully traverses. Moreover, Applicant respectfully submits that since the added features are described on page 6, lines 5-7 and page 7, lines 20-26 of the application, there is no new matter being added with these proposed amendments. Applicant, thus, respectfully requests that the amendments to the claims be entered. Because these independent claims have been rejected based only upon Doyle, Applicant believes that it would be helpful to first briefly describe and characterize the Doyle reference. Generally, Doyle discloses a radio frequency (RF) transmitter unit 20 that can be mounted on an overhead garage door 22 for indicating garage door positions. See *Doyle*, Abstract, Column 2, lines 31-40.

Specifically, turning to FIGS. 2A-2C of Doyle (reproduced below for the convenience of the reader), the RF transmitter unit 20 includes a mercury switch 28 having two electrical contacts 32 and 33 and a bean of mercury 30. See *Doyle*, Column 2, lines 44-48.

FIG. 2A

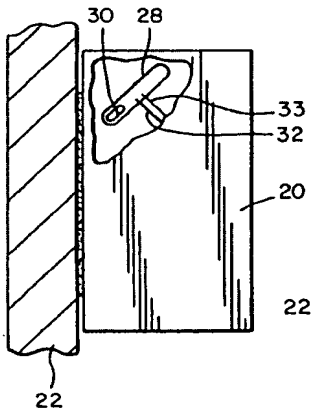


FIG. 2B

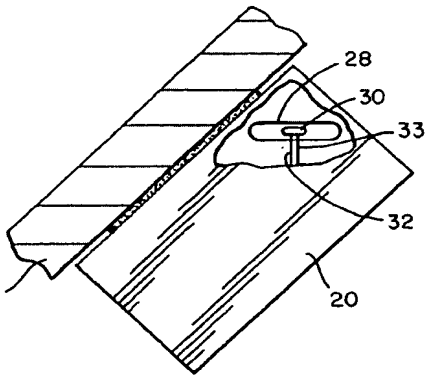
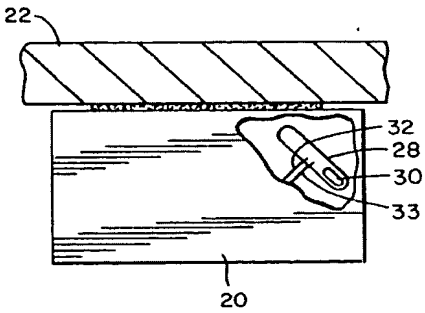


FIG. 2C



The mercury switch 28 is oriented within the RF transmitter unit 20 such that when the garage door 22 is in the vertical position (FIG. 2A), the force of gravity causes the bead of mercury 30 to move to a position where it does not make simultaneous contact with electrical contacts 32 and 33, which blocks an enable signal. See *Id.*, Column 2, lines 54-60. As the garage door 22 changes its orientation, the force of gravity will cause the bead of mercury 30 to move within the mercury switch 28 into a position where it simultaneously contacts electrical contacts 32 and 33 (FIG. 2B), thereby supplying the enable signal to contact 33. See *Id.*, Column 2, lines 61-68. When the garage door 22 finally reaches the horizontal orientation, the force of gravity again causes the bead of mercury 30 to move to a position where it does not make simultaneous contact with electric contacts 32 and 33 (FIG. 2C) and the enable signal on contact 32 is blocked. See *Id.*, Column 3, lines 1-6.

Whenever the enable signal is sent by the RF transmitter unit 20, an RF signal is generated. See *Doyle*, Column 3, lines 20-23. In particular, details of the RF transmitter 20 is shown in FIG. 3A (reproduced below for the convenience of the reader).

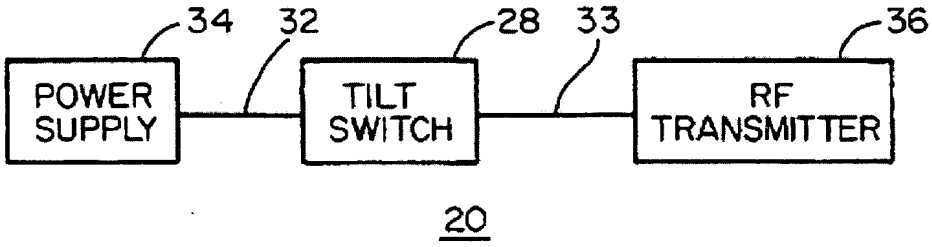


FIG. 3A

The RF transmitter unit 20 includes a power supply 34 that is coupled to a tilt switch (e.g., mercury switch) 28 via the electrical contact 32 and an RF transmitter 36 coupled to the tilt switch 28 via the electrical contact 33. See, *Id.*, Column 3, lines 9-13. When the bead of mercury 30 simultaneously contacts the electrical contacts 32 and 33, the RF transmitter unit 20, via the RF transmitter 36, draws power and transmits the RF signal. See *Id.*, Column 3, lines 24-37.

This transmitted RF signal from the RF transmitter unit 20 is, in turn, received by an RF receiver unit 52 at a remote location, See *Doyle*, Column 3, line 65 to Column 4, line 2, and the RF receiver unit 52 is shown in FIG. 3B (reproduced below for the convenience of the reader).

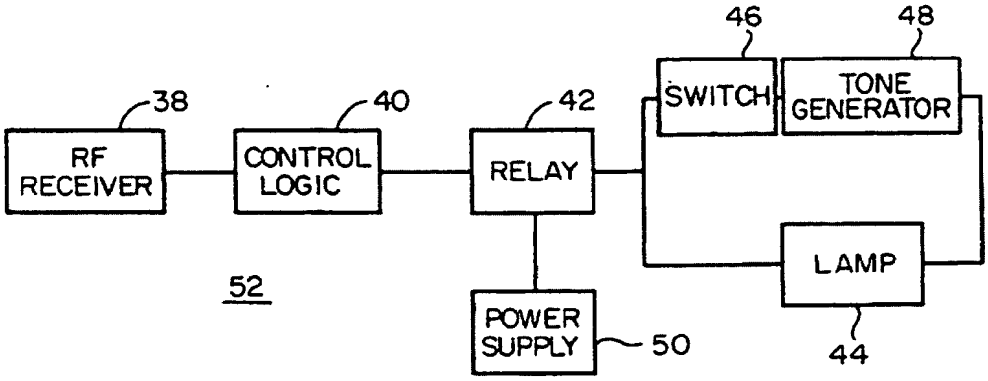


FIG. 3B

The RF receiver unit 52 includes a RF receiver 38 coupled to a control logic 40 that generates a control signal having two states. See *Id.*, Column 4, lines 4-6. In the first state, a power supply 50 is coupled through the relay 42 to a switch 46 and a lamp 44. See *Id.*, Column 4, lines 13-16. In the second state, the power supply 50, in contrast, is isolated from the switch 46 and the lamp 44. See *Id.*, Column 4, lines 16-18. Whenever a RF signal is received at the RF receiver 38 of the RF receiver unit 52, the control logic switches the current state of the RF receiver unit 52, which effectively turns the lamp on and off. See *Id.*, Column 4, lines 19-32. Specifically, if the switch is closed, the lamp 44 and a tone generator 48 are turned on when the garage door 22 is raised and turned off when the door 22 is lowered. See *Id.*, Column 4, lines 39-42.

As shown, the transmitted RF signal from the RF transmitter unit 20 of Doyle, at its most reasonable broadest interpretation, provides **a single position** of the garage door 22. In contrast, claims 1 and 25 require a wireless status condition data transmitter to transmit a status condition signal that corresponds to a present operational status condition defined, at least in part, by **at least two operating states** from the plurality of operating states and claim 15 requires automatically wirelessly transmitting a status condition signal that represents the present operational status defined, at least in part, by the **at least two operating states** in response to detecting the at least one predetermined condition. For all these reasons, Applicant respectfully submits that independent claims 1, 15, and 25, as amended, are distinguishable from Doyle and requests that the rejections of independent claims 1, 15, and 25 be withdrawn.

B. Dependent claims 2-14, 16-24, and 26-33

Dependent claims 2-14, 16-24, and 26-33 ultimately depend respectively upon independent claims 1, 15, and 25, which have been shown to be allowable above. Moreover, they introduce additional content that, particularly when considered in context with the claims from which they depend, comprises additional incremental patentable subject matter. Applicant reserves the right to present further arguments in the future with regard to these dependent claims in the event that their corresponding independent claims are found to be unpatentable. For all these reasons, Applicant respectfully submit that claims 2-14, 16-24, and 26-33 may be passed to allowance.

C. Conclusion

There being no other objections to or rejections of the claims, Applicants respectfully submit that claims 1 through 33 may be passed to allowance.

Respectfully submitted,

By: _____
Grace Law O'Brien
Registration No. 48,872

Date: June 15, 2005

FITCH, EVEN, TABIN & FLANNERY
120 South LaSalle, Suite 1600
Chicago, Illinois 60603-3406
Telephone: (312) 577-7000
Facsimile: (312) 577-7007

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/447,663	05/29/2003	James J. Fitzgibbon	73857	2458

22242 7590 03/16/2005

FITCH EVEN TABIN AND FLANNERY
120 SOUTH LA SALLE STREET
SUITE 1600
CHICAGO, IL 60603-3406

EXAMINER	
CROSLAND, DONNIE L	

ART UNIT	PAPER NUMBER
2636	

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/447,663	FITZGIBBON, JAMES J.	
	Examiner	Art Unit	
	DONNIE L. CROSLAND	2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-33 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-33 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 29 May 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 8-11-03.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6, 9, 10, 12, 13, 15, 17-19, 25, 26, and 29-31 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Doyle et al.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 7, 8, 14, 21, 22, 24, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle et al.

The use of a sonic or infrared link would not involve patentable invention since it is within the capabilities of the skilled artisan to substitute one wireless link for another. Such is a matter of choice. The artisan may pick and choose the available communication links such as radio, light or sound.

The use of an identifier would not involve patentable invention since it is conventional to code RF signals and the provision of an id or identifier that corresponds to the movable barrier is no more than the recognizable code transmitted by the transmitter for the movable barrier.

With respect to claim 22, the predetermined action that corresponds to the status condition may be the opening or closing of the door based on the status signal.

With respect to claim 24, the inquiry signal reads on the status signal received by the transmitter.

Claims 5, 11, 16, 23, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle in view of Suman et al

The operating states and the predetermined action as defined in these claims would not involve patentable invention in view of the teachings of Suman, see figures 4, 7, 9, and 10, and columns 5 and 6.

It would have been obvious to one having ordinary skill in the art to provide the conventional operating states and the predetermined actions in the movable barrier system of Doyle because the specific use and advantage of such is suggested by Suman.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle in view of Duhame.

Duhame shows the status signal being transmitted by a wireline, see co. 4, lines 22-26.

It would have been obvious to one having ordinary skill in the art to transmit the status signals of Doyle through a wireline because the use of a wireline for the transmission of status signals is suggested in Duhame.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Davis is cited as showing the transmission of status signals through a telephone interface.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DONNIE L. CROSLAND whose telephone number is 571-272-2980. The examiner can normally be reached on Mon-Fri, 9:30a-6:00p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JEFFERY HOFSASS can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DONNIE L. CROSLAND
Primary Examiner
Art Unit 2636

Dlc
3-9-05

MOVABLE BARRIER OPERATOR STATUS CONDITION TRANSCEPTION APPARATUS AND METHOD

Technical Field

This invention relates generally to movable barrier operators.

Background

Movable barriers of various kinds are known in the art, including but not limited to horizontally and vertically sliding barriers, vertically and horizontally pivoting barriers, single-piece barriers, multi-piece or segmented barriers, partial barriers, complete barriers, rolling shutters, and various combinations and permutations of the above. Such barriers are typically used to control physical and/or visual access to or via an entryway (or exit) such as, for example, a doorway to a building or an entry point for a garage.

In many cases, a motor or other motion-imparting mechanism is utilized to effect selective movement of such a movable barrier. A movable barrier operator will then usually be utilized to permit control of the motion-imparting mechanism. In some cases a user may control the movable barrier operator by indicating a selection via one or more control surfaces that are physically associated with the movable barrier operator. In other cases such control can be effected by the transmission of a wireless remote control signal to the movable barrier operator.

Over time, the capabilities of and features supported by such movable barrier operators has expanded to include actions other than merely opening and closing a corresponding movable barrier. Some movable barrier operators provide ambient lighting. Some movable barrier operators can sense the likely presence of an obstacle in the path of the movable barrier and take an appropriate corresponding action. And some movable barriers have a plurality of operating modes to facilitate differing control strategies (for example, many movable barrier operators have a so-called vacation mode that prompts use of a differing set of operational states when the user

leaves the movable barrier operator for an extended period of time or a learning mode that places the movable barrier operator into a programmable state to permit manual and/or automatic setting or selection of one or more operational parameters such as a maximum force setting).

Installation settings and needs can vary considerably from one place to another. Notwithstanding this truism, movable barrier operator manufacturers prefer to seek the economies of scale that attend the manufacture and distribution of movable barrier operator platforms that will provide satisfactory service in a wide variety of settings. As a result, some movable barrier operators are manufactured with the ability to support a wide range of functionality. Unfortunately, this often means that a physical interface must be provided to support numerous potentially utilized peripheral devices (including but not limited to sensors, control surfaces, alarms, displays, ambient and/or spot lighting, and so forth). This physical interface can represent undesired additional cost when part of the interface goes unused in a given installation.

Furthermore, even when a given installation includes use of all potentially supported peripherals, the physical installation itself will often necessarily include a physical signaling path to couple the movable barrier operator to the various peripherals. This in turn can result in undesired exposed wiring and/or an undesired increase of installation time.

It is also likely in some installation settings that the physical interface of a given movable barrier operator, regardless of how well conceived in the first instance, may nevertheless fail to permit compatible support of a given peripheral. For example, a given user may wish to provide a quantity of individual lighting platforms that exceeds the number of lights that are supported by the physical interface for a given movable barrier operator. As another example, another given user may wish to support a relatively new function, such as an alarm that sounds when a possibly unauthorized individual enters an opened entryway, that is not specifically supported by a given movable barrier operator.

For these and other reasons, prior art movable barrier operators are often partially or wholly inadequate to suit the present and/or developing needs of a given application.

Brief Description of the Drawings

The above needs are at least partially met through provision of the movable barrier operator status condition transmission apparatus and method described in the following detailed description, particularly when studied in conjunction with the drawings, wherein:

FIG. 1 comprises a block diagram as configured in accordance with various embodiments of the invention;

FIG. 2 comprises another block diagram as configured in accordance with various embodiments of the invention;

FIG. 3 comprises a flow diagram as configured in accordance with an embodiment of the invention;

FIG. 4 comprises a schematic view of a message packet as configured in accordance with various embodiments of the invention;

FIG. 5 comprises a flow diagram as configured in accordance with an embodiment of the invention; and

FIG. 6 comprises a block diagram as configured in accordance with an alternative embodiment of the invention.

Skilled artisans will appreciate that elements in the figures are illustrated for simplicity and clarity and have not necessarily been drawn to scale. For example, the dimensions of some of the elements in the figures may be exaggerated relative to other elements to help to improve understanding of various embodiments of the present invention. Also, common but well-understood elements that are useful or necessary in a commercially feasible embodiment are typically not depicted in order to facilitate a less obstructed view of these various embodiments of the present invention.

Detailed Description

Generally speaking, pursuant to these various embodiments, a movable barrier operator has a controller having a plurality of potential operational status conditions, a movable barrier interface that operably couples to the controller, and a wireless status condition data transmitter that is operably coupled to the controller as well. If desired, one or more status condition sensors can be utilized to sense one or more predetermined conditions and to provide corresponding indicia to the controller. In a preferred embodiment, the wireless status condition data transmitter transmits a status condition signal that corresponds to at least one of the potential operational status conditions. If desired, the status condition signal can be combined with an identifier that correlates (uniquely or relatively uniquely) to the controller and/or the movable barrier operator. Such an identifier can serve to permit a receiving device to process as appropriate the status condition information.

Such status condition information can be received and processed, in a preferred embodiment, by a remote peripheral device (such as, but not limited to, a display, an alarm, a lighting control unit, and so forth). If desired, although the status condition information does not comprise a control signal as such (meaning that the status condition information does not comprise an instructional signal but rather presents only informational content), the remote peripheral can be configured to process the data content to thereby nevertheless effect a desired corresponding action.

So configured, a given movable barrier operator can be set to wirelessly transmit a wide variety of simple messages regarding its operational states. Such information can then be utilized to compatibly support a wide range of presently desired and later-developed features and functionality. If desired, the overall cost of a given platform can be reduced as the need to over-design a physical peripheral interface becomes diminished. Furthermore, such a platform has an improved opportunity to remain compatible with evolving features and legal and/or regulatory requirements to thereby promote a longer useful service life.

Referring now to the drawings, and in particular to FIG. 1, in a preferred embodiment a movable barrier operator 10 will include a controller 11, a movable barrier interface 12, and a wireless status condition data transmitter 15. The controller 11 will preferably comprise a programmable platform (such as, for example, a microprocessor, a microcontroller, a programmable logic or gate array, or the like) that can be readily programmed and configured in accordance with the various teachings set forth herein and as is generally well understood in the art. The movable barrier interface 12 couples to and is controlled by the controller 11 and further couples to a movable barrier 13. Various mechanisms now known or hereafter developed can serve as the movable barrier interface 12 including various drive mechanisms, clutch arrangements, and so forth. In general, the movable barrier interface 12 serves to selectively impart motion to the movable barrier 13 to cause the movable barrier 13 to move to a desired position (such as, for example, a fully opened or a fully closed position) and/or to restrict or prohibit such motion (as when movement of the movable barrier may be the result of gravity and the movable barrier interface 12 serves in part to prevent such movement until such movement is desired). Such controllers 11 and movable barrier interfaces 12 are well understood in the art, and therefore, for the sake of brevity and the preservation of focus, additional explanatory detail regarding such mechanisms will not be provided here.

The wireless status condition data transmitter 15 operably couples to an output of the controller 11. This transmitter 15 can be of any variety as may suit the needs of a given application. For example, the transmitter 15 can comprise a radio frequency carrier-based transmitter, an infrared carrier-based transmitter, or a sonic carrier-based transmitter (all being generally well understood in the art). In a similar fashion, the transmission power, modulation type, signaling protocol, and other attendant characterizing features and practices of the wireless transmitter 15 can again be as desired to suit the needs of a particular setting. In a preferred embodiment, this transmitter 15 will comprise a relatively low power transmitter such that the

signals it broadcasts are only receivable within a relatively constrained area (such as, for example, an effective range of 100 meters, 500 meters, 1,000 meters, or the like). Again, such transmitters are well understood in the art and hence further elaboration here will not be provided.

In a typical embodiment, the controller 11 will have a plurality of potential operational status conditions. For example, the controller 11 might have two or more of the following potential operational status conditions:

- moving the movable barrier in a first direction (such as towards a closed position);
- moving the movable barrier in a second direction (such as towards an opened position);
- reversing movement of the movable barrier (for example, to alter movement from a closed position and towards an open position);
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle (such as a person or pet) in the likely path of movement of the movable barrier;
- detecting a likely proximal presence of a human (such as a person in the vicinity of the controller);
- detecting a likely proximal presence of a compatible transmitter (such as a corresponding remote control transmitter for the movable barrier operator);
- receiving a wireless remote control signal (as sourced, for example, by a handheld remote control device);
- receiving a wireline remote control signal (as sourced, for example, by a wall mounted remote control device);
- receiving a learning mode initiation signal (via, for example, a switch provided for this purpose on the movable barrier operator housing);
- a lighting status change (as when, for example, the controller switches ambient lighting in a garage to an off condition a predetermined period of time following closure of the movable barrier);
- a vacation mode status change (as when a user effects this change via a switch provided for this purpose);
- detecting a likely proximal presence of a vehicle;

- detecting the identification of a proximal vehicle (as when, for example, the vehicle or some corresponding agent device transmits an identifying signal); and

- receiving an operating parameter alteration signal (via, for example, an integral or remote switch or other user interface).

It will be understood and appreciated that these are intended for illustrative purposes only, and that a given controller may have only a subset of these status conditions, a combination of some or all of these status conditions with other status conditions, or a set of wholly different potential status conditions.

Depending upon the needs of the setting, the controller 11 can be self-aware of such operational status conditions (as when, for example, the controller 11 is aware that it has switched a given ambient light fixture on or off) or the controller 11 can be provided with externally developed information regarding the condition. To effect the latter, it may be desirable in some settings to use one or more status condition sensors 14. Such sensors 14 can be disposed integral to the movable barrier operator 10 as suggested by the illustration in FIG. 1 and/or can be configured as remotely disposed entities to suit the requirements of a specific application.

Pursuant to these various embodiments, the wireless status condition data transmitter 15 serves to transmit a status condition signal that represents a present operational status condition of the controller 11. In a preferred embodiment, this transmission occurs automatically in response to when the controller 11 detects at least one predetermined condition, which predetermined condition preferably, but not necessarily, corresponds to the present operational status being reported via the transmission. Another option would be to have such information transmitted on a substantially regular periodic basis. An illustrative (but not all-inclusive) listing of potentially useful predetermined conditions might include:

- moving the movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;

- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- receiving an operating parameter alteration signal;
- expiration of a predetermined duration of time; and
- attainment of a predetermined point in time.

In a preferred approach, this status condition signal does not constitute a control signal per se. That is to say, the controller 11 does not necessarily source this status condition signal as a specific part of implementing a control strategy. As an example, the controller 11 would not source this status condition signal to specifically cause a light to be switched on upon receipt of the signal. Instead, the controller 11 sources this status condition signal to specify that it has, through some other means, initiated a control action or strategy to cause a light to be switched on. The status condition signal then simply reflects the actions being taken by the controller 11 and/or the other operational conditions being experienced by the controller 11.

If desired, such status condition data signals can also be transmitted by the controller 11 via a wireline connection 16.

Referring now to FIG. 2, the status condition signals as transmitted from such a movable barrier operator 10 are preferably received by a remote peripheral 20 having a corresponding compatible wireless receiver 21 that operably couples to a peripheral controller 22. The remote peripheral 20 itself can comprise any of a wide variety of platforms, including but certainly not limited to an informational display, a remote access interface, a light fixture, a timer apparatus, an alarm unit, and so forth. So configured, the remote peripheral 20, upon receiving status condition information from the movable barrier operator 10 via the wireless transmissions being sourced

by the latter, can process that information in accord with a desired end result. For example, the remote peripheral 20 can serve to simply further communicate such status information via a display such as an alphanumeric display, a graphic images display, one or more signal lights and/or corresponding indicative audible sounds, and so forth.

As another example, the remote peripheral 20 can process such status information to then itself ascertain a particular resultant course of activity. To illustrate, the remote peripheral can comprise a peripheral lighting unit that controls the provision of ambient lighting in a particular area (such as in a yard area outside the entrance to a residential garage). Upon receiving a status condition signal from the movable barrier operator 10 indicating that the movable barrier operator 10 has switched on its own lights, the remote peripheral 20 can then itself determine to also switch on its own lights. In a similar fashion, upon being informed that the movable barrier operator 10 has switched its lights off, the remote peripheral 20 can also decide to switch its own lights to an off condition.

So configured, it can be seen that when a movable barrier operator 11 provides wireless signals that represent one or more status conditions, a wide variety of known and hereafter developed remote peripherals 20 can be readily configured to leverage the receipt of such information for a variety of other purposes. Such remote peripherals can further supplement or extend the functionality of the movable barrier operator 10 itself (as when the remote peripheral 20 simply activates additional lighting to complement the lighting strategy of the movable barrier operator 10) or they can facilitate functionality that is above and beyond the control architecture of the movable barrier operator 10. To support the latter, it is preferred that the movable barrier operator 10 tend towards a relatively rich data stream where at least many or even substantially all current operational status conditions are regularly noted and transmitted to thereby provide considerable informational grist for use by the remote peripherals to thereby more likely facilitate additional not-otherwise-supported functionality.

Referring now to FIG. 3, the movable barrier operator 10 related above serves as an appropriate platform to effect a process 30 wherein one or more predetermined operational status conditions are detected 31. In a preferable approach, monitoring (and/or condition occurrence sensitivity) to support such detection occurs on a regular, or even substantially constant, basis. It is also preferred that a plurality of operational status conditions be monitored such that a plurality of differing operational status conditions can be so detected as they occur. As noted earlier, such monitoring and detection can result through one or more operational status condition sensors and/or through the ability of the controller to self-monitor its own operational status.

Upon detecting such a condition, the process 30 then forms 32 a message that includes content to relate, reflect, or otherwise correspond to the detected status condition. In an optional approach, this message can be formed to include an identifier for the movable barrier operator. For example, and referring now momentarily to FIG. 4, such a message 40 can include a first field 41 that includes a specific identification number that is at least relatively unique to a given movable barrier operator and that also includes one or more additional data fields. A single data field can be used if desired to contain information that corresponds to the specified status condition. As another approach, and as illustrated, a plurality of fields (from field 1 41 to field N 43) can be provided, with each field corresponding to, for example, a particular monitored condition. The content of such fields could then comprise one or more flags or other indicia to indicate a particular present status for each such field. (In another approach, such indicia could also provide an indication as to an anticipated or planned change to the status of a given condition including, where available, an anticipated or planned temporal schedule for effecting such changes.)

Upon receipt of such a message, a remote peripheral can use the identifying information to determine whether the received information corresponds to a relevant movable barrier operator (i.e., to a movable barrier operator with which the remote peripheral has been previously associated).

When information from an unrecognized movable barrier operator is received for whatever reason or due to whatever circumstance, the remote peripheral can choose to simply ignore the information and thereby avoid taking a potentially inappropriate action.

Returning again to FIG. 3, the process 30 then provides for automatic transmission 33 of the status condition message via the carrier/transmitter of choice and as otherwise is generally described above. It would of course be possible to transmit other signals and messages via the transmitter too, if desired. For example, specific control signals could also be transmitted (either as part of the above-described message or as a separate message) as an integral part of the overall control strategy of the movable barrier operator.

In a similar fashion, and referring now to FIG. 5, the above-described remote peripheral 20 can serve as a suitable platform to effect a corresponding process 50 wherein the process 50 detects 51 for the reception of status condition signals and, upon receiving such a signal, uses the corresponding data to thereby permit effectuation 52 of a corresponding predetermined action. As already noted, the corresponding predetermined action (or actions) can be many and varied. A non-exhaustive illustrative listing could include:

- activating a light (either ambient lighting and/or signaling indicia);
- deactivating a light;
- activating an audible alarm;
- deactivating an audible alarm;
- manipulating a locking mechanism;
- providing a corresponding information display;
- allowing remote modification of configuration variables; and
- initiating a timing mechanism.

Other possibilities of course exist. It should also be clearly understood that functions not yet conceived or enabled may also be well served and supported by these embodiments, as these embodiments are not dependent upon the movable barrier operator having an already-existing native ability

to support such functionality. Instead, by providing movable barrier operator status indicia, the remote peripherals are themselves able to intuit when circumstances are appropriate to initiate or restrain their own functionality and features.

Those skilled in the art will recognize that a wide variety of modifications, alterations, and combinations can be made with respect to the above described embodiments without departing from the spirit and scope of the invention, and that such modifications, alterations, and combinations are to be viewed as being within the ambit of the inventive concept. For example, if desired, the movable barrier operator could also wirelessly transmit control signaling in addition to the status condition information. Though such control signaling may not offer a same degree of long term flexibility as the preferred approaches set forth above, such control signaling may nevertheless serve to facilitate one or more presently known and highly desired features or functions.

As another example, and referring now to FIG. 6, a remote peripheral controller 22 can also couple to a wireless transmitter 62. In turn, the movable barrier operator controller 11 can further couple to a wireless receiver 61 that serves to compatibly receive messages as transmitted by the remote peripheral controller 11. This link can mirror the carrier/modulation/protocol mechanism described above for the movable barrier operator-to-remote peripheral link, or it can be different. As an illustrative example, the movable barrier operator can have a wireless status condition data transmitter that uses an infrared carrier and a receiver that uses a radio frequency carrier. So configured, a variety of useful purposes can be served. As one example, the remote peripheral controller 22 can query the movable barrier operator controller 11 via this communication mechanism to thereby cause the movable barrier operator controller 11 to respond with, for example, an updated status condition data message.

We claim:

1. A movable barrier operator comprising:

- a controller having a plurality of potential operational status conditions;
- a movable barrier interface that is operably coupled to the controller;
- a wireless status condition data transmitter that is operably coupled to the controller.

2. The movable barrier operator of claim 1 and further comprises at least one condition status sensor that is operably coupled to the controller.

3. The movable barrier operator of claim 2 wherein the wireless status condition data transmitter transmits data that corresponds to the at least one condition status sensor.

4. The movable barrier operator of claim 1 wherein the controller has a plurality of operating states and wherein the wireless status condition data transmitter transmits data that corresponds to at least one of the plurality of operating states.

5. The movable barrier operator of claim 4 wherein the plurality of operating states includes at least one of:

- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- a lighting status change;

- a vacation mode status change;
- detecting a likely proximal presence of a vehicle;
- detecting the identification of a proximal vehicle; and
- receiving an operating parameter alteration signal.

6. The movable barrier operator of claim 1 wherein the wireless status condition data transmitter comprises a radio frequency carrier-based transmitter.

7. The movable barrier operator of claim 1 wherein the wireless status condition data transmitter comprises an infrared carrier-based transmitter.

8. The movable barrier operator of claim 1 wherein the wireless status condition data transmitter comprises a sonic carrier-based transmitter.

9. The movable barrier operator of claim 1 wherein the controller includes transmitter control means for automatically causing the wireless status condition data transmitter to transmit a data signal.

10. The movable barrier operator of claim 9 wherein the transmitter control means automatically causes the wireless status condition data transmitter to transmit the status condition data signal in response to detecting at least a first predetermined condition.

11. The movable barrier operator of claim 10 wherein the first predetermined condition comprises at least one of the controller:
- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;

- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- receiving an operating parameter alteration signal;
- expiration of a predetermined duration of time; and
- attainment of a predetermined point in time.

12. The movable barrier of claim 1 and further comprising a receiver that is operably coupled to the controller.

13. The movable barrier operator of claim 12 wherein the controller includes transmitter control means for automatically causing the wireless status condition data transmitter to transmit a status condition data signal in response to the receiver receiving at least a first predetermined signal.

14. The movable barrier operator of claim 13 wherein the wireless data transmitter comprises an infrared carrier-based transmitter and the receiver comprises a radio frequency carrier-based receiver.

15. A method comprising:
at a movable barrier operator:
- detecting at least one predetermined condition as corresponds to a present operational status of the movable barrier operator;
- in response to detecting the at least one predetermined condition, automatically wirelessly transmitting a status condition signal that represents the present operational status.

16. The method of claim 15 wherein detecting at least one predetermined condition includes detecting at least one of:
- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;

- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- a lighting status change;
- a vacation mode status change;
- detecting a likely proximal presence of a vehicle; and
- receiving an operating parameter alteration signal.

17. The method of claim 15 wherein detecting at least one predetermined condition includes:
- monitoring a plurality of operational status conditions;
- detecting the at least one predetermined condition when any of the plurality of operational status conditions occurs.

18. The method of claim 15 wherein detecting at least one predetermined condition includes at least one of:
- receiving sensor information from a sensor that senses the at least one predetermined condition; and
- monitoring an operating state of the movable barrier operator.

19. The method of claim 15 wherein automatically wirelessly transmitting a status condition signal includes automatically wirelessly transmitting a status condition signal using at least one of:
- a radio frequency carrier;
- a sonic carrier; and
- an optical carrier.

20. The method of claim 19 and further comprising also using a wireline connection to transmit at least a portion of the status condition signal.

21. The method of claim 15 wherein automatically wirelessly transmitting a status condition signal includes automatically wirelessly transmitting a status condition signal that includes an identifier that corresponds to the movable barrier operator.

22. The method of claim 15 and further comprising:

at a remote peripheral apparatus:

- receiving the status condition signal;
- in response to receiving the status condition signal, effecting a predetermined action that corresponds to the status condition signal.

23. The method of claim 22 wherein the predetermined action includes at least one of:

- activating a light;
- deactivating a light;
- activating an audible alarm;
- deactivating an audible alarm;
- manipulating a locking mechanism;
- providing a corresponding information display;
- allowing remote modification of configuration variables; and
- initiating a timing mechanism.

24. The method of claim 15 wherein detecting at least one predetermined condition includes receiving a wireless signal that includes, at least in part, an inquiry signal.

25. An apparatus comprising:

- a movable barrier operator having:
  - a controller having a plurality of potential operational status conditions; and
  - a wireless status condition transmitter operably coupled to the controller;
- a remote peripheral having:
  - a wireless receiver that is communicatively compatible with the wireless transmitter;
  - a peripheral controller that is operably coupled to the wireless receiver.

26. The apparatus of claim 25 wherein the wireless transmitter transmits status condition data that corresponds to at least one of the plurality of operating states.

27. The apparatus of claim 26 wherein the plurality of operating states includes at least one of:

- moving a movable barrier in a first direction;
- moving the movable barrier in a second direction;
- reversing movement of the movable barrier;
- halting movement of the movable barrier;
- detecting a likely presence of an obstacle to movement of the movable barrier;
- detecting a likely proximal presence of a human;
- receiving a wireless remote control signal;
- receiving a wireline remote control signal;
- receiving a learning mode initiation signal;
- a lighting status change;
- a vacation mode status change;

detecting a likely proximal presence of a vehicle; and

- receiving an operating parameter alteration signal.

28. The apparatus of claim 25 wherein the remote peripheral comprises at least one of:

- an informational display;
- a light fixture;
- a remote access interface;
- a timer apparatus; and
- an alarm.

29. The apparatus of claim 25 wherein the movable barrier operator further includes a wireless receiver that is operably coupled to the controller.

30. The apparatus of claim 29 wherein the remote peripheral further includes a wireless transmitter that is communicatively compatible with the wireless receiver of the movable barrier operator and that is operably coupled to the peripheral controller.

31. The apparatus of claim 25 and further comprising a plurality of the remote peripherals.

32. The apparatus of claim 25 wherein the peripheral controller includes reception means for determining when a wireless signal as received from the movable barrier operator includes an identifier that corresponds to the movable barrier operator.

33. The apparatus of claim 32 wherein the reception means further provides a first control signal when the wireless signal does include the identifier and does not provide the first control signal when the wireless signal does not include the identifier.

Abstract of the Disclosure

A movable barrier operator (10) has a wireless status condition data transmitter (15) that wirelessly transmits status condition messages to one or more remote peripherals (20). The latter can in turn use this status information to effect their own functionality and supported features.

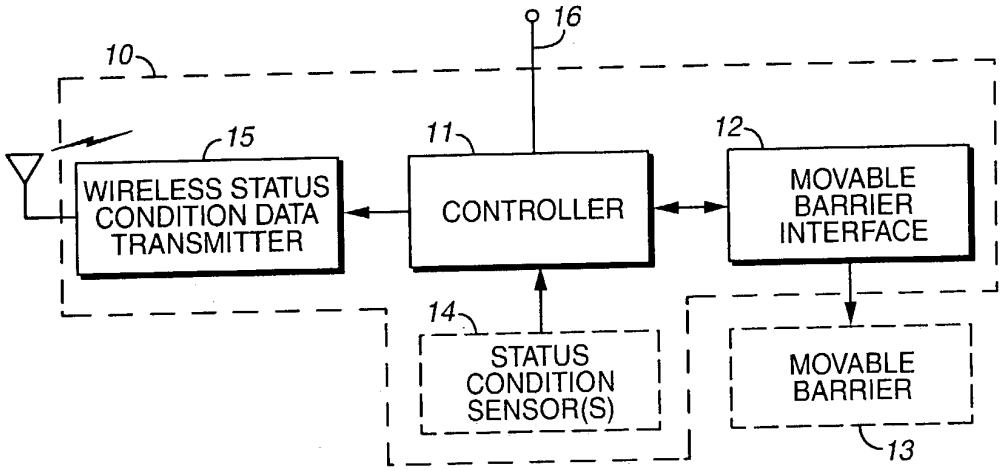

FIG. 1

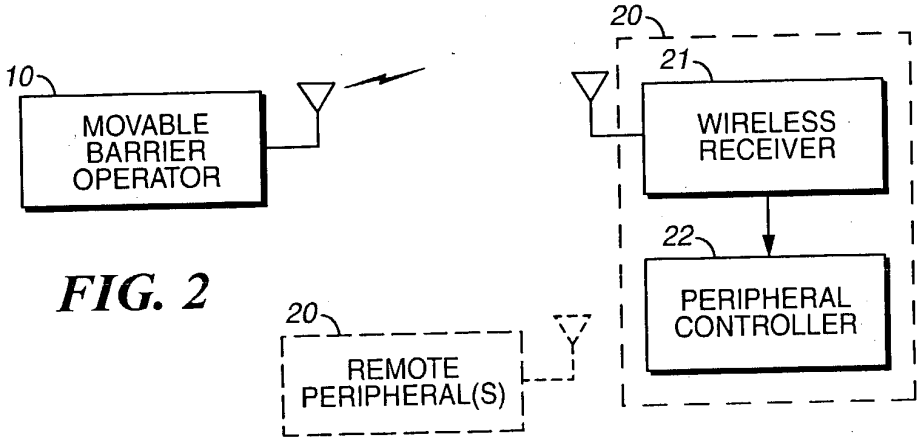

FIG. 2

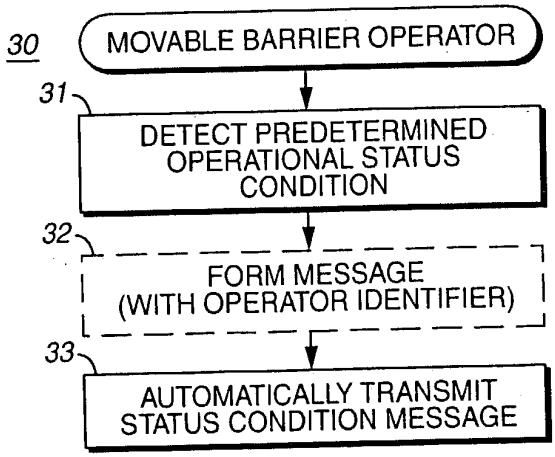

FIG. 3

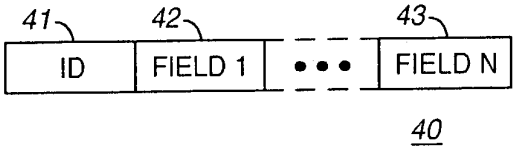

FIG. 4

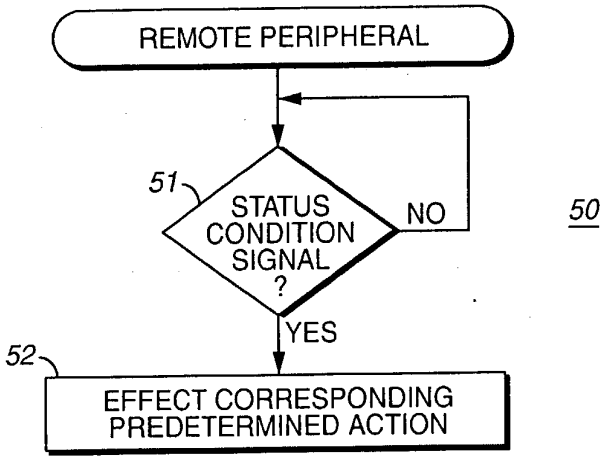

FIG. 5

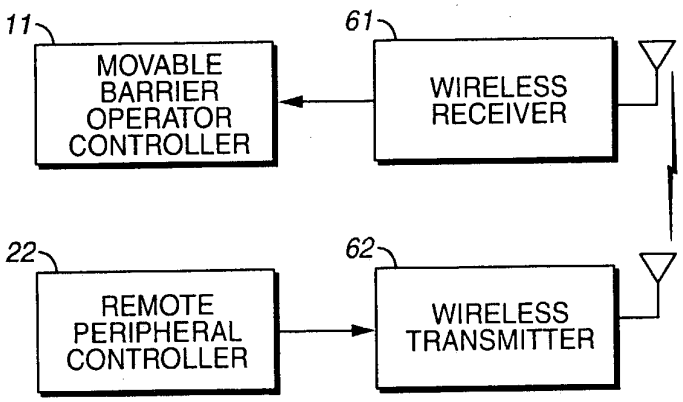

FIG. 6