				Case No. <u>1283</u>
Inventor	;	BURKE, Christopher John		
Title:		REMOTE ENTRY SYSTEM		
		POWER (OF ATTORNEY	
	The specificatio	n of the above-identified patent application	o:	
	is attached heret was filed on Fel	o bruary 13, 2006 as U.S. Application Seria	al No. 10/568.207	
-	I hereby revoke	• • • • • • • • • • • • • • • • • • • •	in the above-identified	d patent application and appoint the following d Trademark Office connected therewith:
			ilz (Reg. No. 34,880) ers, Jr. (Reg. No. 57,8	
	Please address a	il correspondence and telephone calls to M	<u>lichael E. Milz</u> in car	e of:
			er Gilson & Lione	
			Box 10395 , Illinois 60610	
		•	2)321-4200	
he unde	be taken in the P	atent and Trademark Office regarding this vent of a change in the persons from whom	application without of	nd follow instructions from Martin Friedgut as to a direct communication between the U.S. attorney are taken, the U.S. attorneys named herein will be so
		37 CFR 3.73(b)(1) and shown below, the signee was, or concurrently is being, sub		ence of the chain of title from the original ion pursuant to 37 CFR 3.11.
annlicati		<u>V) Pty Ltd.</u> , an Australian company, certifive by virtue of either:	ies that it is the assign	see of the entire right, title and interest in the paten
арр <i>п</i> оак. ⊠		·	on identified above u	which is being recorded concurrently becawith
	An assignment from the inventor(s) of the patent application identified above, which is being recorded concurrently herewith pursuant to 37 CFR 3.11, a copy of which is attached hereto. OR			
	An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel, frame OR			
	A chain of title i	from the inventor(s) of the patent application	on identified above to	the current assignee as shown below:
		From To:		
	1.	The document was recorded in the Pater Reel, frame, or a copy the		fice at
	2.	The document was recorded in the Pater Recl, frame, or a copy then From To: The document was recorded in the Pater	reof is attached. nt and Trademark Off	
		The document was recorded in the Pater Rccl, frame, or a copy then From To: The document was recorded in the Pater Reel, frame, or a copy then	reof is attached. nt and Trademark Off reof is attached.	fice at
o the be	2. The undersigned	The document was recorded in the Pater Reel, frame, or a copy then From To: The document was recorded in the Pater Reel, frame, or a copy then Additional document has reviewed the assignment or all the document.	reof is attached. In and Trademark Offereof is attached. Its in the chain of title cuments in the chain.	fice at are listed on a supplemental sheet. of title of the patent application identified above a
to the be	2. The undersigned st of undersigned	The document was recorded in the Pater Reel, frame, or a copy therefore To: The document was recorded in the Pater Reel, frame, or a copy therefore Additional document	reof is attached. Int and Trademark Office of is attached. Its in the chain of title cuments in the chain agnee identified above.	fice at are listed on a supplemental sheet. of title of the patent application identified above as
belief are	The undersigned st of undersigned. The undersigned I hereby declare believed to be tree punishable by f	The document was recorded in the Pater Reel, frame, or a copy there From To: The document was recorded in the Pater Reel, frame, or a copy there are made in the Pater Reel, frame, or a copy there are with the assignment or all the document in the assignment in the assignment in the assignment in the assignment in the assignme	nt and Trademark Off reof is attached. ts in the chain of title cuments in the chain a gnee identified above. ered to act on behalf of a knowledge are true, nade with the knowled in 1001, Title 18 of the	fice at are listed on a supplemental sheet. of title of the patent application identified above as
belief are made, are statemen	The undersigned st of undersigned. The undersigned I hereby declare believed to be to be punishable by for the may jeopardize the punishable by for the may jeopardize the punishable by for the punis	The document was recorded in the Pater Reel, frame, or a copy there From To: The document was recorded in the Pater Reel, frame, or a copy there are a copy there are made in the Pater Reel, frame, or a copy there are in the assignment or all the document has reviewed the assignment or all the document in the statements are in the statements made herein of my own the continuous made in the portion of imprisonment, or both, under Section in the statements are in the continuous made in the portion of imprisonment, or both, under Section in the statements are in the portion of imprisonment, or both, under Section in the Pater Record in the	nt and Trademark Off reof is attached. ts in the chain of title cuments in the chain a gnee identified above. ered to act on behalf of a knowledge are true, nade with the knowled in 1001, Title 18 of the	are listed on a supplemental sheet. of title of the patent application identified above as of the assignee. and that all statements made on information and dge that willful false statements, and the like so
belief are	The undersigned st of undersigned. The undersigned I hereby declare believed to be to be punishable by for the may jeopardize the punishable by for the may jeopardize the punishable by for the punis	The document was recorded in the Pater Reel, frame, or a copy there From To: The document was recorded in the Pater Reel, frame, or a copy there are a copy there are made in the Pater Reel, frame, or a copy there are in the assignment or all the document has reviewed the assignment or all the document in the statements are in the statements made herein of my own the continuous made in the portion of imprisonment, or both, under Section in the statements are in the continuous made in the portion of imprisonment, or both, under Section in the statements are in the portion of imprisonment, or both, under Section in the Pater Record in the	nt and Trademark Off reof is attached. ts in the chain of title cuments in the chain a gnee identified above. ered to act on behalf of a knowledge are true, nade with the knowled in 1001, Title 18 of the	fice at are listed on a supplemental sheet. of title of the patent application identified above as of the assignee. and that all statements made on information and dge that willful false statements, and the like so e United States Code, and that such willful false

1205071 (Power_of_Attorney w chain of title): smc

MANAGING DIRECTOR



Title:

Remote Entry System

Inventors: Burke; John Christopher; (New South Wales, AU)

Description

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation patent application of U.S. Non-Provisional Application No. 10/568,207 for REMOTE ENTRY SYSTEM, filed June 04, 2008, the disclosure of which is incorporated by reference in its entirety.

FIELD OF THE INVENTION

[0001] The present invention relates to secure access systems and, in particular, to systems using wireless transmission of security code information.

BACKGROUND

[0002] FIG. 1 shows a prior art arrangement for providing secure access. A user 401 makes a request, as depicted by an arrow 402, directed to a code entry module 403. The module 403 is typically mounted on the external jamb of a secure door. The request 402 is typically a secure code of some type which is compatible with the code entry module 403. Thus, for example, the request 402 can be a sequence of secret numbers directed to a keypad 403. Alternately, the request 402 can be a biometric signal from the user 401 directed to a corresponding biometric sensor 403. One example of a biometric signal is a fingerprint. Other physical attributes that can be used to provide biometric signals include voice, retinal or iris pattern, face pattern, palm configuration and so on.

[0003] The code entry module 403 conveys the request 402 by sending a corresponding



signal, as depicted by an arrow 404, to a controller 405 which is typically situated in a remote or inaccessible place. The controller 405 authenticates the security information provided by the user 401 by interrogating a database 407 as depicted by an arrow 406. If the user 401 is authenticated, and has the appropriate access privileges, then the controller 405 sends an access signal, as depicted by an arrow 408, to a device 409 in order to provide the desired access. The device 409 can, for example, be the locking mechanism of a secure door, or can be an electronic lock on a personal computer (PC) which the user 401 desires to access.

[0004] A proximity card can also be used to emit the request 402, in which case the code entry module 403 has appropriate functionality.

[0005] Although the request 402 can be made secure, either by increasing the number of secret digits or by using a biometric system, the communication infrastructure in FIG. 1 is typically less secure. The infrastructure 400 is generally hardwired, with the code entry module 403 generally being mounted on the outside jamb of a secured door. In such a situation, the signal path 404 can be over a significant distance in order to reach the controller 405. The path 404 represents one weak point in the security system 400, providing an unauthorised person with relatively easy access to the information being transmitted between the code entry module 403 and the controller 405. Such an unauthorised person can, given this physical access, decipher the communicated information between the code entry module 403 and the controller 405. This captured information can be deciphered, replayed in order to gain the access which rightfully belongs to the user 401, or to enable modification for other subversive purposes. [0006] Current systems as depicted in FIG. 1 utilise a communication protocol called "Wiegand" for communication between the code entry module 403 and the controller 405. The Wiegand protocol is a simple one-way data protocol that can be modified by increasing or decreasing the bit count to ensure uniqueness of the protocol among different security companies. The Wiegand protocol does not secure the information being sent between the code entry module 403 and the controller 405.

[0007] More advanced protocols such as RS 485 have been used in order to overcome the vulnerability of the Wiegand protocol over the long distance route 404. RS 485 is a duplex protocol offering encryption capabilities at both the transmitting and receiving



ends, i.e. the code entry module 403 and the controller 405 respectively in the present case. The length of the path 404 nonetheless provides an attack point for the unauthorised person.

[0008] Due to the cost and complexity of re-wiring buildings and facilities, security companies often make use of existing communication cabling when installing and/or upgraded security systems, thereby maintaining the vulnerability described above.

SUMMARY

[0009] It is an object of the present invention to substantially overcome, or at least ameliorate, one or more disadvantages of existing arrangements.

[0010] According to a first aspect of the present invention, there is provided a system for providing secure access to a controlled item, the system comprising:

[0011] a database of biometric signatures;

[0012] a transmitter subsystem comprising: [0013] a biometric sensor for receiving a biometric signal; [0014] means for matching the biometric signal against members of the database of biometric signatures to thereby output an accessibility attribute; and [0015] means for emitting a secure access signal conveying information dependent upon said accessibility attribute, wherein the secure access signal comprises one of at least a rolling code, an encrypted Bluetooth.TM. protocol, and a WiFi.TM. protocol; and [0016] a receiver sub-system comprising; [0017] means for receiving the transmitted secure access signal; and [0018] means for providing conditional access to the controlled item dependent upon said information.

[0019] According to another aspect of the present invention, there is provided a transmitter sub-system for operating in a system for providing secure access to a controlled item, the system comprising a database of biometric signatures, a receiver sub-system comprising means for receiving a secure access signal transmitted by the transmitter sub-system, and means for providing conditional access to the controlled item dependent upon information conveyed in the secure access signal; wherein the transmitter subsystem comprises: [0020] a biometric sensor for receiving a biometric signal; [0021] means for matching the biometric signal against members of the database of biometric signatures to thereby output an accessibility attribute; and [0022]



means for emitting the secure access signal conveying said information dependent upon said accessibility attribute, wherein the secure access signal comprises one of at least a rolling code, an encrypted Bluetooth.TM. protocol, and a WiFi.TM. protocol. [0023] According to another aspect of the present invention, there is provided receiver sub-system for operating in a system for providing secure access to a controlled item, the system comprising a database of biometric signatures, a transmitter subsystem comprising a biometric sensor for receiving a biometric signal, means for matching the biometric signal against members of the database of biometric signatures to thereby output an accessibility attribute, and means for emitting a secure access signal conveying information dependent upon said accessibility attribute, wherein the secure access signal comprises one of at least a rolling code, an encrypted Bluetooth.TM. protocol, and a WiFi.TM. protocol; wherein the receiver sub-system comprises; [0024] means for receiving the transmitted secure access signal; and [0025] means for providing conditional access to the controlled item dependent upon said information. [0026] According to another aspect of the present invention, there is provided a method for providing secure access to a controlled item, the method comprising the steps of: [0027] receiving a biometric signal;

[0028] matching the biometric signal against members of a database of biometric signatures to thereby output an accessibility attribute;

[0029] emitting a secure access signal conveying information dependent upon said accessibility attribute, wherein the secure access signal comprises one of at least a rolling code, an encrypted Bluetooth.TM. protocol, and a WiFi.TM. protocol; and [0030] providing conditional access to the controlled item dependent upon said information.

[0031] According to another aspect of the present invention, there is provided a method for populating a database of biometric signatures in a system for providing secure access to a controlled item, the system comprising said database of biometric signatures, a transmitter subsystem comprising a biometric sensor for receiving a biometric signal, and means for emitting a secure access signal, and a receiver subsystem comprising means for receiving the transmitted secure access signal, and means for providing conditional access to the controlled item dependent upon



DOCKET

Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.

