

1) Family number: 79457029 (US10683677B)

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Title: INTELLIGENT DOOR LOCK SYSTEM FOR USE WITH A DOOR ASSEMBLY
Priority: US20150256637P 20151117 US20160354994 20161117
Family:

Publication number	Publication date	Application number	Application date
US10683677 BA	20200616	US20160354994	20161117

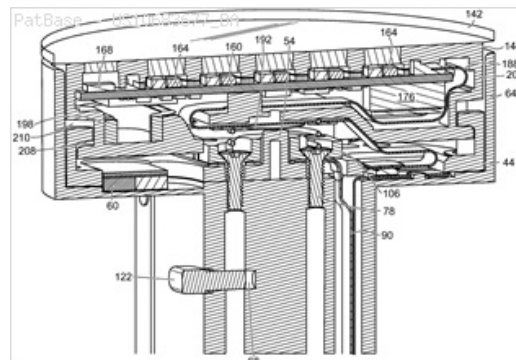
Probable Assignee: OTTO LLC
Assignee(s):(std): OTTO LLC
Inventor(s):(std): FOUNTAIN JORDAN ; FUNAMURA JOSHUA ; JADALLAH ERIC ; KESSLER PATRICK ; LYLYK NICOLAS PEDRO ; MORGENSTERN DAVID ; MURPHY ROBERT SEAN ; SATTERFIELD PHILLIP ; SPRINGER GREG
Agent(s): NELSON MULLINS RILEY AND SCARBOROUGH LLP; LAURENTANO ANTHONY A
International class (IPC 8-9): E05B17/00 E05B17/10 E05B41/00 E05B45/00 E05B47/00 E05B53/00 E05B9/02 F16H19/00 (Advanced/Invention); G07C9/00 G08B5/36 (Advanced/Non-invention)
CPC: E05B9/02 E05B17/0075 E05B17/0083 E05B17/10 E05B41/00 E05B45/00 E05B47/0012 E05B53/008 F16H19/001 E05B2047/0048 E05B2047/0097 G07C9/00309 G07C2009/00769 G08B5/36

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Cited documents: US9916746 BB, US9528294 BB, US9487971 BB, US8011217 BB, US7963134 BB, US7748244 BB, US7389661 BB, US6651468 BB, US6116066 A, US5933086 A, US5873276 A, US2829913 A, US2016343181 AA, US2016049025 AA, US2015096341 AA, US2014109633 AA, US2013192318 AA, US2011291428 AA, US2011265527 AA, US2011259059 AA, US2010257906 AA, US2010011822 AA, US2006114099 AA, US2002056300 AA,

Abstract:

An intelligent door lock system that permits both electronic and manual control of a deadbolt. The door lock system can include an inner bezel assembly, an outer bezel assembly, and a deadbolt assembly, where the deadbolt assembly can be coupled to the outer bezel assembly via a twist-lock feature. The inner bezel assembly also includes a puck assembly that seats within an inner bezel. The puck assembly can be retained within or released from the inner bezel via a latch assembly. The outer bezel assembly includes a display assembly that seats within an outer bezel. The outer bezel is coupled to a motor chassis assembly that includes a motor and gear assembly having a series of gears that translate movement of dial elements or a motor into movement of a bolt element between locked and unlocked positions.



2) Family number: 20660237 (US2004010706A)

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Title: HIGH SECURITY WIRELESS KEY FOR ASYNCHRONOUS DELIVERY DROP BOXES
Priority: US20000209149P 20000603 US20000209149P 20000603 US20000228555P 20000828
US20000245504P 20001103 WO2001US18061 20010604 US20010299727P 20010622
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US20070754261 20070525 US20070762739 20070613

Family:	Publication number	Publication date	Application number	Application date
	AU2001268172 AA	20011217	AU20010268172	20010604
	AU2001288468 AA	20020313	AU20010288468	20010828
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	AU200168172 A5	20011217	AU20010068172	20010604
	AU200188468 A1	20020313	AU20010088468	20010828
	AU200188468 A5	20020313	AU20010088468	20010828
	AU2002253789 AA	20020904	AU20020253789	20011105
	CA2411846 AA	20021203	CA20012411846	20010604
	CA2457141 AA	20040226	CA20012457141	20010828
	US2004010706 AA	20040115	US20030415502	20030428
	US2004026504 AA	20040212	US20020297246	20021203

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WO02067076 C2	20030103	WO2001US43999	20011105
WO0219092 A1	20020307	WO2001US26840	20010828

Probable Assignee: VISIBLE ASSETS INC

Assignee(s):(std): STEVENS JOHN ; STEVENS JOHN K ; VISIBLE ASSETS INC ; WATERHOUSE PAUL ; EBOX COM ; EBOX COM INC ; EBOX USA INC ; EBOXCOM INC ; AUGUST JASON

Assignee(s): LEUNG GRANT ; EBOX USA INC A DELAWARE CORP ; VERGE CHRISTOPHER W ; VANDENBERG MICHAEL J ; TRUONG KENNETH ; EBOXCOM ; EBOX U INC SA

Inventor(s):(std): WATERHOUSE PAUL ; VERGE CHRISTOPHER W ; VANDENBERG MICHAEL J ; TRUONG KENNETH ; AUGUST JASON ; STEVENS JOHN ; STEVEN JOHN K ; LEUNG GRANT ; STEVENS JOHN K

Inventor(s): VERGE CHRISTOPHER ; JOHN K STEVENS ; STEVEN JOHN

Agent(s): CASSAN MACLEAN; MCGINN AND GIBB PLLC; JASON AUGUST; OPPEDAHL AND LARSON LLP; OPPEDAHL PATENT LAW FIRM LLC - VAI; OPPEDAHL PATENT LAW FIRM LLC VAI; MICHAEL J BUCHENHORNER; OPPEDAHL PATENT LAW FIRM LLC; LARSON AND ANDERSON LLC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

International class (IPC 8-9): A47G29/12 B65D77/04 B65D81/20 B65D81/38 E05B47/00 G06F1/26 G06F11/00 G06F17/00 G06F21/10 G06F7/04 G06F7/08 G06K15/00 G06K7/01 G06Q10/00 G06Q10/08 G06Q30/00 G07C9/00 G07F17/12 G07F7/00 G08B13/14 G08B29/00 H04B17/00 H04L29/06 H04L9/32 H04Q5/22 (Advanced/Invention); G06F21/62 G06F21/86 G07B17/00 G11B20/00 (Advanced/Non-invention); E05B47/00 G07C9/00 G07F17/10 G07F7/00 G08B13/14 H04Q5/00 (Core/Invention)

International class (IPC 1-7): B65D81/20 E05B47/00 G06F G06F17/60 G06F7/04 G06F7/08 G06K5/00 G08B13/14 H04B17/00 H04L9/32

CPC: G07F17/0042 G06Q10/087 E05B47/00 E05B47/0012 E05B2047/0023 E05B2047/0058 G07C9/00904 G06F21/88 G06F21/10 G11B20/00086 B65D77/0406 B65D81/2023 B65D81/3816 B65D2203/10 H04W64/003 G06F21/6218 G06F21/79 G06F21/86 G06F2221/2111 G07C9/23 G07C9/27 G07C9/38 G07C9/00174 G07C9/00182 G07C2009/00222 G07C2009/0023 G07C2009/00642 G07C2009/00769 G06Q10/08 G06Q30/00 G06Q30/0601 G06Q99/00 G07B2017/00209 G07C9/00571 G07C9/00896 G07C9/00912 G07C2009/00793 G07F17/12

European class: B65D77/04B B65D81/20B2 B65D81/38B1 E05B47/00 E05B47/00A4 G06F17/60C5 G06F21/88 G06Q10/08 G06Q10/087 G06Q30/00 G06Q30/0601 G06Q99/00 G07C9/00B6B G07C9/00B8 G07C9/00C4 G07C9/00E2 G07C9/00E20B G07C9/00E20C G07C9/00E7 G07F17/00D G07F17/12 G07F7/00D L65D203/10 P05B47/00A5D3 P05B47/00E2B S07B17/00E1B S07C9/00E S07C9/00E10B S07C9/00E14C S07C9/00E14C6 S07C9/00E20 S07C9/00E2D4 S07C9/00E2F

US class: 1/1 206/524.8 206/524.800P 232/19 235/375 235/375S 235/382 235/382.5 235/382.500S 235/382P 235/383 235/383P 235/385 235/385P 340/10.42 340/10.420P 340/514 340/531 340/531S 340/539.21 340/569 340/572.7 340/572.700P 379/903 379/903S 455/115.4 455/63.1 455/63.100S 455/67.11 455/67.110P 455/67.7 702/182 702/182S 705/26 705/26.1 705/26.100S 705/26S 705/28 705/500 713/182 713/182P 713/185 713/185S 713/200 726/17 726/20 726/21 726/27 726/34 726/4 726/4P

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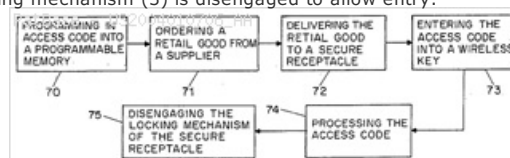
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Forward Citations:

WO19161873, WO18204387, WO18053551, WO18053549, WO18053548, WO18053545, WO18053543, WO17098512, WO17075952, WO14201090, WO09018931, WO07045051, WO07033388, WO07033388, WO05015164, WO04104753, WO04104753, USRE47599, USD714514, USD703155, USD635841, USD621689, US9990784, US9916746, US9898711, US9894261, US9830441, US9811798, US9798999, US9792465, US9704313, US9665742, US9530714, US9528296, US9500022, US9485607, US9447995, US9447609, US9413396, US9401850, US9386450, US9374280, US9372016, US9351098, US9344684, US9323958, US9322201, US9322194, US9300724, US9294365, US9280365, US9262896, US9205969, US9174791, US9151679, US9140476, US9139351, US9138295, US9082096, US9069933, US9059991, US9058553, US9019070, US8953804, US8941464, US8914863, US8907793, US8878931, US8854029, US8823581, US8787725, US8707414, US8681000, US8643503, US8598982, US8511555, US8397310, US8387869, US8378841, US8351350, US8334703, US8325041, US8319630, US8286881, US8232860, US8223019, US8164458, US8138922, US8115472, US8111138, US8026819, US7990270, US7954712, US7948381, US7864053, US7826920, US7770790, US7768403, US7755486, US7701346, US7667606, US7646301, US7639134, US7626505, US7623035, US7597256, US7546137, US7538681, US7456418, US7382264, US7374106, US7358856, US7336183, US7321290, US7307536, US7307526, US7267266, US7242301, US7242290, US7196622, US7173530, US7172115, US7129837, US7129837, US6820805, US2018253388, US2017351999, US2017344969, US2017308098, US2017181559, US2017178064, US2016032621, US2015373543, US2015120457, US2015026485, US2015012457, US2014366126, US2014265359, US2014246491, US2014167216, US2014125460, US2014008246, US2013305395, US2013265145, US2013249670, US2013082933, US2012223809, US2012189125, US2011275348, US2011155802, US2011106296, US2011067282, US2010265071, US2010223966, US2010156642, US2010109871, US2010081895, US2010065632, US2010033330, US2010027737, US2009322472, US2009273439, US2009236416, US2009195389, US2009027166, US2008320298, US2008275287, US2008272881, US2008246610, US2008218348, US2008211711, US2008150676, US2008094177, US2008088461, US2008001716, US2007268109, US2007205273, US2007120673, US2007115132, US2007096875, US2007089330, US2007085688, US2007083921, US2007066223, US2007024421, US2007013521, US2007008133, US2007001846, US2006287870, US2006232417, US2006220857, US2006202825, US2006181413, US2006164232, US2006144940, US2006122852, US2006087436, US2006031124, US2005218215, US2005173543, US2005162269, US2005156736, US2005149226, US2005043886, US2005029345, US2005024200, US2005006462, US2004246130, US2004227630, US2004178274, US10691953, US10662675, US10653262, US10643293, US10638848, US10628334, US10600022, US10586144, US10577831, US10558942, US10523903, US10521762, US10521761, US10474982, US10445999, US10445682, US10443266, US10410165, US10410164, US10409469, US10402775, US10388094, US10364594, US10362273, US10339492, US10329801, US10306443, US10304273, US10217079, US10210474, US10038872, US10032239, US10002341, TWI553587, TWI370643, GB2483474, GB2480322, GB2480322, EP2880584, EP2389489, EP2389489, EP2056263, EP1938504, DE102009044251, CN109653597, CN106327705, CN105700840, CN105575009, CN104899945, CN104899945, CN104574603, CN104574602, CN103035049, CN102831721, CN102496202,

Abstract:

A wireless key (6), capable of transmitting an ultra-low frequency radio wave signal (5), is used to gain access to a secure receptacle (1), the wireless key (6) and receptacle (1) comprising a system to ensure the secure transfer or delivery of items between parties typically engaging in e-commerce. The wireless key (6) possesses a means to discriminate against the unauthorized entry of the receptacle, such as through the use of buttons to enter a secure access code. The wireless key (6) accepts an access code entry from the user desiring entry to the receptacle (1) and subsequently transmits an ultra-low frequency signal (5) to a receiving and processing means (4). If the analysis of the signal indicates the user of the wireless key (6) is authorized to gain entry to the receptacle (1), the receptacle's locking mechanism (3) is disengaged to allow entry.



3) Family number: 73841254 (WO19068021A1)

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Title:	ACCESS SYSTEMS AND METHODS FOR USE												
Priority:	US20170564852P 20170928		US20170578295P 20171027		US20180615726P 20180110								
Family:	<table><tr><th>Publication number</th><th>Publication date</th><th>Application number</th><th>Application date</th></tr><tr><td> WO19068021 A1</td><td>20190404</td><td>WO2018US53606</td><td>20180928</td></tr></table>					Publication number	Publication date	Application number	Application date	 WO19068021 A1	20190404	WO2018US53606	20180928
Publication number	Publication date	Application number	Application date										
 WO19068021 A1	20190404	WO2018US53606	20180928										
Probable Assignee:	GATE LABS INC												
Assignee(s):(std):	GATE LABS INC												
Inventor(s):(std):	ARIANA AMIN ; EHYAIE DANIAL ; HO HARVEY ; SAEEDI EHSAN												
Agent(s):	LEVINE DAVID A ET AL												
Designated states:	AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW												
International class (IPC 8-9):	E05B47/00 G06Q10/08 G07C9/00 H04L29/06 (Advanced/Invention)												
CPC:	E05B47/026 E05B2047/0017 E05B2047/0058 G07C9/00309 G07C9/00563 G07C9/00817 G07C2009/00825 G07C2209/08 G06Q10/08 G07C9/00 H04L67/125												

[Classification Explorer](#)

Cited documents: US2017076520 AA, US2017011570 AA, US2016307380 AA, US2015112885 AA, US2010176919 AA,

Abstract:

Disclosed are systems, apparatus, and methods for remotely managing access to a space and performing trust verification to authorize or deny people access to the space. An access management platform comprising an electronic lock installed on a door can enable a user to establish a virtual presence at the door. For example, a delivery person can activate a doorbell button or icon of the lock and the lock can send a message to a smartphone of a user of the platform. The user can remotely use the smartphone to initiate a video stream using a camera of the platform and a two way audio stream. The user can use the smartphone to unlock the door and ask the delivery person to deliver the package inside. The platform can also determine and control the status of the space and communicate with other devices regarding the status of the space.

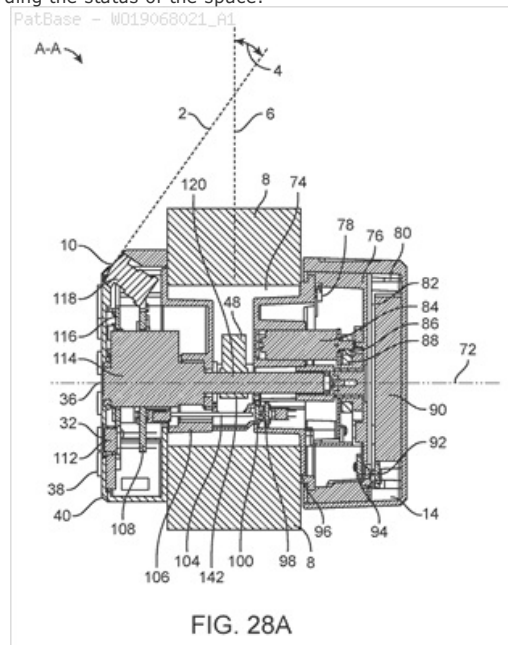


FIG. 28A

4) Family number: 57419375 (US2014265359A)

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Title: INTELLIGENT DOOR LOCK SYSTEM

Priority:	US20130800937P	20130315	US20130801236P	20130315	US20130801937P	20130315
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Family:

Publication number	Publication date	Application number	Application date
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WO16130777 A1	20160818	WO2016US17508	20160211
WO16196025 A1	20161208	WO2016US33257	20160519

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Assignee(s):(std): JOHNSON JASON ; KIM CHRISTOPHER ; UNADKAT TEJASH ; SRINIVASAN BHARADWAJ ; AUGUST HOME INC

Assignee(s): CHENG SHIH YU THOMAS ; ARANDA JOSEPH

Inventor(s):(std): ARANDA JOSEPH ; CHENG SHIH YU THOMAS ; JOHNSON JASON ; KIM CHRISTOPHER ; UNADKAT TEJASH ; SRINIVASAN BHARADWAJ ; SIVASAMBU KARTHIKEYAN ; RUSSO THOMAS PETER ; RANDO ROLF ; PETTY SHANNON ; MAINWARING KUY N ; LOWE GILES ; LETOURNEUR HERVE JACQUES CLEMENT ; KIM CHRIS ; GIDWANI SIDDHARTH ; FORNELL PETER ALF JOAKIM ; FORNELL PETER ; DOW CHRISTOPHER ; CURRY MASON ; CALDWELL JOHN ; BARADEL LUCA

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; GRIFFITH HACK; BERESKIN AND PARR LLP SENCRL SRL; PAUL; BEYER LAW GROUP LLP; WOLF GREENFIELD AND SACKS PC; DAVIS PAUL ET AL; DAVIS PAUL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): B60R25/00 E05B1/00 E05B17/00 E05B17/10 E05B39/00 E05B39/04 E05B41/00 E05B45/00 E05B45/06 E05B47/00 E05B47/02 E05B49/00 E05B53/00 E05B55/12 E05B63/00 E05B63/04 E05B63/06 E05B65/06 E05B81/54 E05C1/00 E05C1/06 E05D15/50 E05F15/20 G05B1/00 G05B19/00 G05B23/00 G06F3/0488 G06F7/00 G06F7/04 G06F8/65 G06F9/445 G06K19/00 G06K9/00 G07C9/00 G08B1/00 G08B1/08 G08B13/08 G08B13/14 G08B13/196 G08B17/10 G08B19/00 G08B23/00 G08B25/00 G08B29/00 G08B29/18 G08B3/10 G08B5/22 G08B6/00 G08C19/00 G08C19/12 G08C23/02 H04B1/00 H04B1/38 H04B3/00 H04B3/36 H04B7/00 H04L12/28 H04L12/40 H04L29/06 H04L29/08 H04N5/232 H04N7/18 H04Q1/00 H04Q9/00 H04W12/04 H04W12/06 H04W12/10 H04W24/08 H04W4/00 H04W4/02 H04W4/04 H04W4/18 H04W4/80 H04W84/12 (Advanced/Invention); E05B45/06 E05B47/00 E05C3/06 G05B19/00 G05B23/00 G06F7/00 G06F7/04 G06K19/00 G08B29/00 G08C19/00 H04B1/00 H04B1/38 H04B1/3827 H04B3/00 H04L29/06 H04Q1/00 H04Q9/00 H04W12/06 H04W4/00 H04W84/12 H04W84/18 (Advanced/Non-invention)

CPC: E05B17/0058 E05B2047/0057 E05B65/104 G08B19/005 E05B2047/0084 E05B2047/0094 G08B13/2491 H04L12/413 G08B1/08 G08B25/009 H04W84/12 E05C1/00 E05D15/50 E05B49/00 E05B17/0083 E05B17/0087 H04N7/181 G08B13/19636 E05B1/0007 G07C2009/00746 E05B2047/0096 H04W4/027 G07C9/00563 H04W88/16 E05B17/10 E05B47/02 E05B81/54 G07C2009/00277 H04B1/3833 G08B6/00 H04W84/18 G07C9/00182 E05F15/70 G07C2209/08 G06K9/00255 G06K9/00261 G08B25/08 G07C2009/00841 Y02D70/00 E05B43/005 G08B17/10 G08B25/10 H04N5/23206 H04L12/282 H04W12/00504 G07C2009/00865 G06F3/04847 G07C2009/00634 G06F8/65 G07C9/00174 E05B39/04 E05B41/00 E05B2047/0071 G06F3/0488 G07C2009/00642 G07C2209/65 G08B3/10 G08B13/1966 G08B29/188 G08C23/02 E05B53/008 E05B65/06 E05B2047/0016 E05B63/0004 E05B2047/0067 E05B2047/0097 G07C2009/00412 H04L63/0428 H04L63/061 G07C2209/64 G08B13/19613 G08B13/19628 G08B13/19656 G08B13/19676 G06K9/00771 H04N5/23238 E05B47/0038 E05B63/0065 E05B2047/0065 E05B2047/0069 E05B2063/0091 E05B2047/0068 G07C2009/00793 G07C2009/0096 G08B13/08 G07C9/20 G07C9/22 G07C9/32 E05B47/026 E05B2047/0022 E05B2047/0095 Y107292/1021 E05B39/00 E05B47/00 E05B47/0001 E05B55/12 E05B2045/069 E05B2047/0072 E05C1/004 G07C9/00 G07C9/00857 G08B29/185 G07C2009/00769 H04W4/023 H04W4/18 H04W4/80 G07C9/28 H04W4/029 H04W4/33 G07C2009/00507 G07C9/00896 G07C9/23 H04W12/04071 G06K9/00335 E05B47/0012 E05B2047/002 E05B2047/0048 E05B2047/0058 G07C9/00309 H04W12/04031 H04W12/0804 E05B45/06 E05B2047/0091 G07C9/00944 G07C2209/62 G08B13/19695 H04N7/186 G07C9/00571 G07C9/00904 G07C2209/63 H04W12/0608 Y02D70/1244 Y02D70/142 Y02D70/144 Y02D70/146 Y02D70/162 Y02D70/164 Y02D70/23 Y02D70/26

US class: 1/1 292/144 340/5.21 340/5.28 340/5.54 340/5.61 340/5.7 340/539.14 340/542 348/152 348/155 348/159 348/36 455/41.2 70/263 70/91 713/168 717/172

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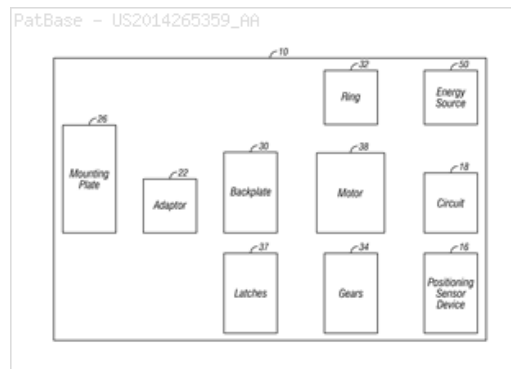
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Abstract:

An intelligent door lock system is provided with a position sensing device configured to be coupled to a drive shaft of a lock device. The position sensing device senses position of the drive shaft and assists in locking and unlocking a lock of a lock device. An engine is provided with a memory coupled to the positioning sensing device. A circuit is coupled to the engine and an energy source is coupled to the circuit. A device converts energy into mechanical energy and is coupled to the circuit, positioning sensing device and the drive shaft. The device that converts energy is coupled to the energy source to receive energy from the energy source.



5) Family number: 58506490 (US2015049745A)

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Title: TIME-REVERSAL WIRELESS SYSTEMS HAVING ASYMMETRIC ARCHITECTURE

Priority:	US20080284496	20080923	US20120744093P	20120918	US20120706342	20121205
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Inventor(s): LIU KJ ; LIU K ; LIU KJ RAY

Agent(s): CONROY JOHN; BOULT WADE TENNANT LLP; FISH AND RICHARDSON PC; XIAO YINGXIN; TAFT STETTINIUS AND HOLLISTER LLP; HUANG REX I; SCHEPERS BRAD A ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): A61B5/00 A61B5/0205 A61B5/0245 A61B5/04 A61B5/05 A61B5/08 A61B5/11 A61B5/113 A61B5/117 A61B5/16 B66B3/02 E05B47/00 G01B7/00 G01C21/10 G01C21/16 G01C21/20 G01S11/02 G01S13/00 G01S13/04 G01S13/06 G01S13/536 G01S13/56 G01S13/72 G01S13/87 G01S13/88 G01S3/74 G01S5/00 G01S5/02 G01S5/06 G01S7/00 G01S7/41 G01V3/12 G05B19/00 G06F21/32 G06F7/04 G06K9/00 G06N20/00 G06T15/00 G07C9/00 G08B13/08 G08B13/18 G08B13/181 G08B13/187 G08B21/02 G08B25/04 G08B29/18 H02J50/20 H02J50/23 H02J50/40 H04B1/38 H04B17/30 H04B17/309 H04B17/318 H04B17/336 H04B5/00 H04B7/0456 H04B7/06 H04L1/00 H04L1/06 H04L12/26 H04L23/02 H04L25/00 H04L25/02 H04L25/03 H04L25/49 H04L25/497 H04L27/10 H04L27/18 H04L27/26 H04L27/36 H04L27/38 H04L5/00 H04L5/12 H04L7/00 H04L7/04 H04W24/02 H04W24/08 H04W24/10 H04W28/02 H04W36/34 H04W4/00 H04W4/02 H04W4/029 H04W4/16 H04W4/33 H04W48/08 H04W48/10 H04W48/12 H04W48/16 H04W52/02 H04W56/00 H04W64/00 H04W72/00 H04W72/04 H04W72/08 H04W72/12 H04W76/02 H04W84/12 H04W88/02 H04W88/08 (Advanced/Invention); A61B5/05 A61B5/113 G01S5/06 H02J7/02 H04B7/00 H04B7/06 H04L1/06 H04L25/02 H04W4/80 H04W48/12 H04W84/12 H04W88/10 (Advanced/Non-invention)

CPC: H04L25/03891 H04L25/0398 H04L25/0328 H04L25/03318 H04L2025/03802 H04L1/00 H04L25/4975 H04L5/0005 H04W24/08 H04B17/21 H04B17/24 H04W72/0473 H04W52/04 H04W52/241 H04W52/246 H04W52/267 H04W52/346 H04W24/02 H04W88/10 H04L1/0017 H04B17/318 H04W48/16 H04B17/345 H04B17/391 H04B7/0456 H04B7/06 H04B7/0617 H04L25/00 H04B17/364 H04B17/3912 H04L27/34 H04W28/0268 G01S13/00 G01S13/46 G01S13/48 G01S2013/462 A61B5/02 G01S5/0226 H04W72/042 H04W72/0446 H04W72/085 H04B1/0046 H04L25/0204 H04L25/0212 H04L25/03834 H04W4/30 H04W4/70 H04W48/12 H04B1/06 Y02D70/00 Y02D70/142 Y02D70/144 Y02D70/146 Y02D70/162 Y02D70/166 Y02D70/26 Y02D70/40 H04L1/0002 H04L25/03 H04L27/10 H04W64/003 H04W72/005 A61B5/117 G06F21/32 G06K9/00369 G06K9/00523 G06K9/00536 G07C9/00 G01C21/165 G01C21/206 G01S5/0263 G01S5/02 H04W4/026 H04W4/027 H04W4/33 H02J50/20 H02J50/40 H04B5/0037 H04L5/0023 H04L5/0048 H04L25/0226 H04L27/2613 H04L27/2614 H02J50/23 G08B13/24 H04B1/385 E05B47/0012 E05B2047/002 E05B2047/0024 E05B2047/0069 G01B7/003 G01D5/04 G01D5/145 A61B5/024 A61B5/0507 A61B5/0816 A61B5/1113 A61B5/7246 A61B5/7253 G01S5/0273 H04B17/309 A61B5/113 A61B5/7257 A61B5/7264 A61B5/7267 G01S5/06 H04L25/0222 H04L25/0224 H04L1/06 H04W52/143 H04W52/247 H04W52/34 A61B5/4809 A61B5/4812 A61B5/7282 H04L25/0202 H04B17/336 H04B17/373 H04L25/025 H04L25/03012 H04L25/03343 H04W52/367 H04W64/00 H04W52/0206 H04W52/0229 G08B29/186 G08B29/20 A61B5/0022 A61B5/112 A61B5/4806 A61B5/6898 H04L25/0228 H04W56/001 H04L7/042 H04L25/0242 H04L25/4902 H04L43/12 G01S5/00 G08C17/00 H04L5/0057 H04B1/38 H04L27/362 H04W72/0413 G01S13/726 G01S2007/356 G01S13/50 G01S7/415 G01S13/003 G01S13/04 G01S13/536 G01S13/56 G01S13/88 G01V3/12 G08B13/08 G08B13/187 G08B29/185 H04W4/80 G08B13/181 H04B7/0626 H04W84/12 G07C9/37 G01S5/0054 G01S5/0252 E05B47/026 E05B2047/0052 G01D5/12 G01S7/412 G01S7/006 G01S5/14 G01S11/02 H04W72/0453 H04W4/023 H04W48/08 H04W72/0433 G01S7/417 G01S13/931 H02J7/025 G16H50/70 G16H50/20 G16H40/67 G01S13/723 G06K9/00348 H04W4/029 H04W88/08 H04J15/00 H04L1/0001

US class: 1/1 340/552 342/451 370/252 370/328 370/329 370/330 370/337 375/219 375/261 375/298 455/450 455/456.1

[Classification Explorer](#)

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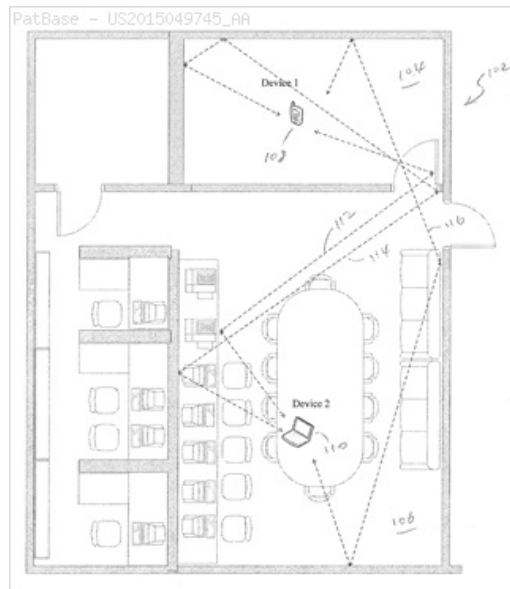
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Forward Citations:

WO20092405, WO20074359, WO20061781, WO20037313, WO20023303, WO20000613, WO19204033, WO19183607, WO19169864, WO19080735, WO19080734, WO19080728, WO19043638, WO18175072, WO18145044, WO18127232, WO18023191, WO17155634, US9989622, US9961662, US9955307, US9933517, US9930083, US9927519, US9900794, US9887864, US9883511, US9882675, US9876657, US9826298, US9826013, US9825838, US9822634, US9794156, US9781700, US9755860, US9749784, US9743294, US9736002, US9686054, US9648064, US9560100, US9559874, US9413571, US9407306, US9402245, US9313020, US9226304, US2019304273, US2019278684, US2019174330, US2019146076, US2019132036, US2019114888, US2019089456, US2019087696, US2019081823, US2019079523, US2019053020, US2019036751, US2018348337, US2018331926, US2018308186, US2018287856, US2018287828, US2018133743, US2018091980, US2018075746, US2018026820, US2017344974, US2017311279, US2016261451, US2016081060, US2016057521, US2015015413, US2013279561, US10699539, US10698593, US10694472, US10694320, US10686670, US10667244, US10667198, US10667147, US10667091, US10667086, US10665284, US10650621, US10645536, US10645100, US10641610, US10641517, US10637737, US10637707, US10622846, US10622845, US10621855, US10609711, US10605908, US10605907, US10602372, US10600314, US10588034, US10573173, US10567914, US10565860, US10554523, US10554473, US10551479, US10547474, US10531230, US10521784, US10510252, US10510235, US10506384, US10500120, US10499364, US10498467, US10498420, US10495725, US10484210, US10484208, US10477348, US10460581, US10459076, US10459074, US10455357, US10448342, US10447394, US10447094, US10440705, US10438468, US10425937, US10425900, US10425457, US10404387, US10397742, US10393866, US10382893, US10380881, US10380856, US10374863, US10361585, US10341928, US10334570, US10331401, US10327213, US10325641, US10321270, US10321262, US10318890, US10305766, US10291537, US10291460, US10270642, US10264405, US10236945, US10235871, US10228439, US10225805, US10218555, US10217346, US10200874, US10178502, US10168414, US10163311, US10145935, US10142785, US10142131, US10129862, US10129853, US10111228, US10109168, US10109167, US10108903, US10064014, US10064013, US10051414, US10048350, US10014982, US10009148, US10004076, US10003374, KR101945320, EP3660534, EP3492946, EP3492945, EP3492944, EP3489851, CN111123388, CN110920779, CN110740004, CN110013252, CN109431526, CN109171731, CN109151724, CN109150775, CN108811023, CN108594284, CN108553108, CN108553108, CN108204857, CN108183736, CN107911452, CN107822645, CN107822645, CN107822617, CN107679499, CN107248100, CN106953682, CN106953682, CN106027166,

Abstract:

In an asymmetric time-reversal wireless system, a base station includes an input circuit configured to, during a hand-shake period, receive a channel response signal derived from a probe signal sent from a first terminal device to the apparatus through multiple wireless propagation paths, and during an uplink transmission period, receive combined signals that include a signal from the first terminal device and a signal from a second terminal device. The base station includes a data processor configured to calculate a signature waveform for the first terminal device based on the channel response, and determine the signal sent from the first terminal device during the uplink transmission period based on the combined signals and the signature waveform for the first terminal device.



6) Family number: 68940937 (US2018080245A)

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Title:	DOOR LOCK BOLT PLATE PIVOT SYSTEM, AND ASSOCIATED STRUCTURES AND METHODS											
Priority:	US20160396794P	20160919	US20170709363	20170919	US20170708081	20170918	US20170709372	20170919	US20170709367	20170919	US20170709396	20170919
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	US20180917220	20180309	US20180917186	20180309	US20180917186	20180309						
	US20190428685	20190531										

Family:	Publication number	Publication date	Application number	Application date
	AU2017326707 AA	20190502	AU20170326707	20170919
	AU2017326709 AA	20190502	AU20170326709	20170919
	AU2017326712 AA	20190502	AU20170326712	20170919
	CA3037496 AA	20190319	CA20173037496	20170919
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	CN110088415 A	20190802	CN201780071762	20170919
	CN110088416 A	20190802	CN201780071763	20170919
	US2018080245 AA	20180322	US20170709419	20170919
	US2018080247 AA	20180322	US20170709415	20170919
	US2018080250 AA	20180322	US20170708081	20170918
	US2018080251 AA	20180322	US20170709363	20170919
	US2018080252 AA	20180322	US20170709367	20170919
	US2018080253 AA	20180322	US20170709372	20170919
	US2018080255 AA	20180322	US20170709396	20170919
	US2018171667 AA	20180621	US20180916879	20180309
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	US2018171669 AA	20180621	US20180917028	20180309
	US2018171670 AA	20180621	US20180917153	20180309
	US2018171671 AA	20180621	US20180917220	20180309
	US2018171673 AA	20180621	US20180917186	20180309
	US2020063463 AA	20200227	US20190428711	20190531
	US2020071958 AA	20200305	US20190428685	20190531
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	US10364594 BB	20190730	US20180917028	20180309
	US10557286 BB	20200211	US20180917186	20180309
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Probable Assignee: LEVEL HOME INC

Assignee(s):(std): CALFORNA THNGS INC ; CALIFORNIA THINGS INC ; FOUNTAIN JORDAN R ; FOUNTAN JORDAN R ; GOTO KENNETH D ; KING THOMAS E ; KNG THOMAS E ; LEVEL HOME INC ; MARTIN JOHN H ; MARTN JOHN H

Assignee(s): BARAKAT WAE L S

Inventor(s):(std): BARAKAT WAE L S ; FOUNTAIN JORDAN R ; FOUNTAN JORDAN R ; GOTO KENNETH D ; KING THOMAS E

; KNG THOMAS E ; MARTIN JOHN H ; MARTN JOHN H

Agent(s): PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; SMITHS IP; PERKINS COIE LLP; COLEMAN BRIAN R ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): E05B15/02 E05B15/16 E05B17/00 E05B17/20 E05B17/22 E05B33/00 E05B45/06 E05B47/00 E05B47/02 E05B51/00 E05B63/00 E05B63/06 E05B63/14 E05B9/00 E05B9/02 G01P15/00 G07C9/00 (Advanced/Invention)

CPC: G07C9/00 E05B17/2026 E05B17/22 E05B2047/0072 E05B2045/067 E05B2047/0067 G07C9/00309 E05B17/0004 E05B33/00 E05B45/06 E05B51/005 E05B63/06 E05B2047/0016 E05B2047/0026 E05B2047/003 E05B2047/0034 E05B2047/0036 E05B2047/0048 E05B2047/0059 E05B2047/0081 E05B2047/0084 E05B2047/0094 G01P15/005 G07C9/00174 G07C9/00182 G07C9/00944 G07C2009/0019 G07C2009/00412 G07C2209/62 E05B47/0012 E05B47/026 E05B2047/0058 E05B2047/0069 E05B2047/0095 E05B9/002 E05B9/02 E05B15/0205 E05B15/1621 E05B47/00 E05B47/0001 E05B63/0056 E05B2015/023 E05B2047/002 E05B2047/0024 G07C2009/00769 E05B15/10 E05B17/20 E05B17/2049 E05B2009/004

US class: 1/1 292/337 292/340 70/134 70/278.7 70/279.1 70/280 70/466 73/493

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Abstract:

Disclosed are embodiments of a tapered bolt receiver for a door lock to accommodate misalignment, between a deadbolt mounted to a door, and an opposing jamb. The tapered bolt receiver can be configured to accommodate misalignment for a deadbolt having a non-tapered bolt, such as for an electromechanical smart lock having a battery stored within a battery compartment that is integrated with an enhanced bolt. Also disclosed are embodiments of a deadbolt plate pivot assembly that is pivotably mountable to a corresponding deadbolt assembly to define a plate pivot system, to accommodate a beveled door edge. An illustrative embodiment of the deadbolt plate pivot assembly includes opposing plate that captures a hinge assembly, which can include plastic plate hinges, which serve to locate the deadbolt plate pivot assembly with respect to a corresponding bolt housing, and can provide a spring force and/or constant torque when mounted to a beveled door.

