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Gazdzinski

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(54) **COMPUTERIZED INFORMATION AND DISPLAY APPARATUS**

(56) **References Cited**

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U.S. PATENT DOCUMENTS

3,388,376 A	6/1968	Magee
3,733,608 A	5/1973	McGhay et al.
4,050,063 A	9/1977	Schull
4,075,632 A	2/1978	Baldwin et al.
4,401,971 A	8/1983	Saito et al.
4,534,056 A	8/1985	Feilchenfeld et al.
4,577,177 A	3/1986	Marubashi
4,623,874 A	11/1986	Thoma
4,691,202 A	9/1987	Denne et al.
4,692,769 A	9/1987	Gegan

(Continued)

FOREIGN PATENT DOCUMENTS

DE	34 40 177	5/1996
JP	52018653 A	2/1977

(Continued)

OTHER PUBLICATIONS

Chung, (Spring 1998), "Even Smarter Smart Materials", University of Buffalo, UB Research, vol. 8, No. 1.

(Continued)

Related U.S. Application Data

(60) Continuation of application No. 13/369,850, filed on Feb. 9, 2012, now Pat. No. 8,447,612, which is a continuation of application No. 12/711,692, filed on Feb. 24, 2010, now Pat. No. 8,117,037, which is a continuation of application No. 11/506,975, filed on Aug. 17, 2006, now Pat. No. 7,711,565, which is a division of application No. 10/935,957, filed on Sep. 7, 2004, now Pat. No. 7,093,693, which is a division of application No. 10/651,451, filed on Aug. 29, 2003, now Pat. No. 6,988,071, which is a continuation of application No. 09/330,101, filed on Jun. 10, 1999, now Pat. No. 6,615,175.

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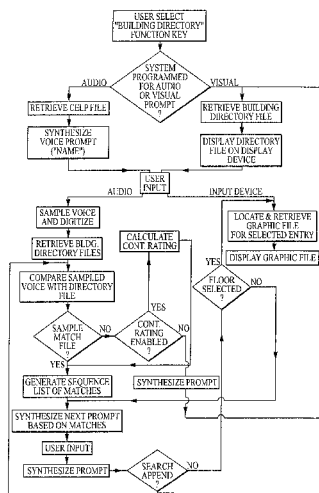
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ABSTRACT

Computerized apparatus for obtaining and displaying information, such as for example directions to a desired entity or organization. In one embodiment, the computerized apparatus is configured to receive user speech input and enable performance of various tasks, such as obtaining desired information relating to indoor entities, maps or directions, or any number of other topics. The obtained data may also, in various variants, be displayed in various formats and relative to other entities nearby.

68 Claims, 24 Drawing Sheets

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- (58) **Field of Classification Search**
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(56)

References Cited

U.S. PATENT DOCUMENTS

4,708,224	A	11/1987	Schrooder	5,932,853	A	8/1999	Friedli et al.
4,749,062	A	6/1988	Tsuji et al.	5,943,624	A	8/1999	Fox et al.
4,926,182	A	5/1990	Ohta et al.	5,955,710	A	9/1999	DiFranza
4,935,962	A	6/1990	Austin	5,959,357	A	9/1999	Korman
4,979,593	A	12/1990	Watanabe et al.	5,979,757	A	11/1999	Tracy et al.
4,995,479	A	2/1991	Fujiwara et al.	5,984,051	A	11/1999	Morgan et al.
5,027,104	A	6/1991	Reid	5,987,381	A	11/1999	Oshizawa
5,035,563	A	7/1991	Mezey	5,995,898	A	11/1999	Tuttle
5,038,283	A	8/1991	Caveney	6,010,074	A	1/2000	Kelly et al.
5,042,620	A	8/1991	Yoneda et al.	6,011,839	A	1/2000	Friedli et al.
5,053,774	A	10/1991	Shcuermann et al.	6,028,564	A	2/2000	Duan et al.
5,055,968	A	10/1991	Nishi et al.	6,037,907	A	3/2000	Ha et al.
5,056,629	A	10/1991	Tsuji et al.	6,040,745	A	3/2000	Tanaka et al.
5,079,411	A	1/1992	Lee	6,049,745	A	4/2000	Douglas et al.
5,086,450	A	2/1992	Kitagawa et al.	6,067,297	A	5/2000	Beach
5,121,407	A	6/1992	Partyka et al.	6,073,727	A	6/2000	DiFranza et al.
5,159,163	A	10/1992	Bahjat et al.	6,078,928	A	6/2000	Schnase et al.
5,182,570	A	1/1993	Nysen et al.	6,082,500	A	7/2000	Amo et al.
5,200,583	A	4/1993	Kupersmith et al.	6,130,602	A	10/2000	O'Toole et al.
5,255,341	A	10/1993	Nakajima	6,144,301	A	11/2000	Frieden
5,287,266	A	2/1994	Malec et al.	6,163,749	A	12/2000	McDonough et al.
5,293,029	A	3/1994	Iijima	6,177,872	B1	1/2001	Kodukula et al.
5,295,064	A	3/1994	Malec et al.	6,184,841	B1	2/2001	Shober et al.
5,320,561	A	6/1994	Cook et al.	6,192,222	B1	2/2001	Greeff et al.
5,374,930	A	12/1994	Shcuermann	6,202,008	B1	3/2001	Beckert et al.
5,444,444	A	8/1995	Ross	6,202,799	B1	3/2001	Drop
5,446,447	A	8/1995	Carney et al.	6,206,142	B1	3/2001	Meacham
5,448,110	A	9/1995	Tuttle et al.	6,223,160	B1	4/2001	Kostka et al.
5,450,086	A	9/1995	Kaiser	6,230,132	B1	5/2001	Class et al.
5,463,209	A	10/1995	Figh et al.	6,236,836	B1	5/2001	Westman et al.
5,465,099	A	11/1995	Mitsui et al.	6,236,968	B1	5/2001	Kanevsky et al.
5,467,099	A	11/1995	Bonebright et al.	6,239,765	B1	5/2001	Johnson et al.
5,485,897	A	1/1996	Matsumoto et al.	6,317,027	B1	11/2001	Watkins
5,491,484	A	2/1996	Schuermann	6,329,139	B1	12/2001	Nova et al.
5,491,715	A	2/1996	Flaxl	6,331,825	B1	12/2001	Ladner et al.
5,512,910	A	4/1996	Murakami et al.	6,332,127	B1	12/2001	Bandera et al.
5,528,222	A	6/1996	Moskowitz et al.	6,335,685	B1	1/2002	Schrott et al.
5,537,105	A	7/1996	Marsh et al.	6,341,668	B1	1/2002	Fayette et al.
5,539,775	A	7/1996	Tuttle et al.	6,349,797	B1	2/2002	Newville et al.
5,551,532	A	9/1996	Kupersmith	6,360,167	B1	3/2002	Millington et al.
5,555,286	A	9/1996	Tendler	6,362,737	B1	3/2002	Rodgers et al.
5,557,254	A	9/1996	Johnson et al.	6,397,976	B1	6/2002	Hale et al.
5,561,435	A	10/1996	Nalbandian et al.	6,411,212	B1	6/2002	Hecht et al.
5,572,226	A	11/1996	Tuttle	6,421,305	B1	7/2002	Gioscia et al.
5,606,154	A	2/1997	Doigan et al.	6,460,036	B1	10/2002	Herz
5,606,323	A	2/1997	Heinrich et al.	6,466,232	B1	10/2002	Newell et al.
5,621,412	A	4/1997	Sharpe et al.	6,483,433	B2	11/2002	Moskowitz et al.
5,629,981	A	5/1997	Nerlikar	6,486,801	B1	11/2002	Jones
5,638,425	A	6/1997	Meador et al.	6,504,571	B1	1/2003	Narayanaswami et al.
5,649,296	A	7/1997	MacLellan et al.	6,507,279	B2	1/2003	Loof
5,682,139	A	10/1997	Pradeep et al.	6,526,506	B1	2/2003	Lewis
5,682,143	A	10/1997	Brady et al.	6,535,107	B1	3/2003	Bartz
5,689,094	A	11/1997	Friedli et al.	6,557,758	B1	5/2003	Monico
5,701,121	A	12/1997	Murdoch	6,571,279	B1	5/2003	Herz et al.
5,726,630	A	3/1998	Marsh et al.	6,583,713	B1	6/2003	Bates
5,742,509	A	4/1998	Goldberg et al.	6,587,835	B1	7/2003	Treyz et al.
5,745,036	A	4/1998	Clare	6,594,580	B1	7/2003	Tada et al.
5,749,443	A	5/1998	Romao	6,606,644	B1	8/2003	Ford et al.
5,790,946	A	8/1998	Rotzoll	6,611,691	B1	8/2003	Zhou et al.
5,818,021	A	10/1998	Szewczykowski	6,615,175	B1	9/2003	Gazdzinski
5,819,201	A	10/1998	DeGraaf	6,628,336	B2	9/2003	Hamamura
5,819,284	A	10/1998	Farber et al.	6,632,171	B2	10/2003	Iddan et al.
5,844,181	A	12/1998	Amo et al.	6,636,566	B1	10/2003	Roberts et al.
5,850,187	A	12/1998	Carrender et al.	6,636,748	B2	10/2003	Monroe
5,852,421	A	12/1998	Maldonado	6,642,956	B1	11/2003	Safai
5,852,775	A	12/1998	Hidary	6,651,045	B1	11/2003	Macaulay
5,887,139	A	3/1999	Madison et al.	6,709,387	B1	3/2004	Glukhovskiy et al.
5,892,441	A	4/1999	Woolley et al.	6,712,276	B1	3/2004	Abali et al.
5,894,266	A	4/1999	Wood et al.	6,714,249	B2	3/2004	May et al.
5,900,808	A	5/1999	Lebo	D492,403	S	6/2004	Iddan et al.
5,901,211	A	5/1999	Dean et al.	6,764,440	B2	7/2004	Iddan et al.
5,907,286	A	5/1999	Kuma	6,771,981	B1	8/2004	Zalewski et al.
5,917,433	A	6/1999	Keillor et al.	6,774,762	B2	8/2004	Bates
				6,799,327	B1	9/2004	Reynolds et al.
				6,801,792	B1	10/2004	Schuster et al.
				6,806,808	B1	10/2004	Watters et al.
				6,823,459	B1	11/2004	Horikoshi et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

6,866,195 B2 3/2005 Knowles et al.
 6,884,213 B2 4/2005 Raz et al.
 6,904,308 B2 6/2005 Frisch et al.
 6,934,093 B2 8/2005 Kislev et al.
 6,934,573 B1 8/2005 Glukhovskiy et al.
 6,936,003 B2 8/2005 Iddan
 D510,139 S 9/2005 Gilad et al.
 6,939,290 B2 9/2005 Iddan
 6,944,316 B2 9/2005 Glukhovskiy et al.
 6,944,533 B2 9/2005 Kozak et al.
 6,950,690 B1 9/2005 Meron et al.
 6,951,536 B2 10/2005 Yokoi et al.
 6,958,034 B2 10/2005 Iddan et al.
 D512,150 S 11/2005 Iddan et al.
 6,975,941 B1 12/2005 Lau et al.
 6,984,205 B2 1/2006 Gazdzinski
 6,986,738 B2 1/2006 Glukhovskiy et al.
 6,988,071 B1 1/2006 Gazdzinski
 6,990,312 B1 1/2006 Gioscia et al.
 6,994,253 B2 2/2006 Miller et al.
 7,005,961 B2 2/2006 Bates
 7,009,634 B2 3/2006 Iddan et al.
 7,017,822 B2 3/2006 Aisenbrey
 7,022,067 B2 4/2006 Glukhovskiy et al.
 7,058,397 B2 6/2006 Ritter
 7,065,492 B2 6/2006 Cinquini et al.
 7,093,693 B1 8/2006 Gazdzinski
 7,132,946 B2 11/2006 Waldner et al.
 7,136,853 B1 11/2006 Kohda et al.
 7,253,715 B2 8/2007 Bates
 7,305,345 B2 12/2007 Bares et al.
 7,327,257 B2 2/2008 Posamentier
 7,354,397 B2 4/2008 Fujita et al.
 7,515,953 B2 4/2009 Madar et al.
 7,577,244 B2 8/2009 Taschereau
 7,702,798 B2 4/2010 Apreutesei et al.
 7,711,565 B1 5/2010 Gazdzinski
 7,765,588 B2 7/2010 Sahota et al.
 7,777,608 B2 8/2010 Bates
 7,783,978 B1 8/2010 Andrews et al.
 8,065,155 B1 11/2011 Gazdzinski
 8,065,156 B2 11/2011 Gazdzinski
 8,078,473 B1 12/2011 Gazdzinski
 8,117,037 B2 2/2012 Gazdzinski
 8,285,551 B2 10/2012 Gazdzinski
 8,285,553 B2 10/2012 Gazdzinski
 8,290,778 B2 10/2012 Gazdzinski
 8,290,781 B2 10/2012 Gazdzinski
 8,296,146 B2 10/2012 Gazdzinski
 8,296,153 B2 10/2012 Gazdzinski
 8,301,456 B2 10/2012 Gazdzinski
 8,311,834 B1 11/2012 Gazdzinski
 2001/0017649 A1 8/2001 Yaron
 2002/0032435 A1 3/2002 Levin
 2002/0109774 A1 8/2002 Meron et al.
 2002/0163443 A1 11/2002 Stewart et al.
 2003/0016293 A1 1/2003 Hamamura
 2003/0058345 A1 3/2003 Morris et al.
 2003/0058354 A1 3/2003 Parulski et al.
 2003/0095193 A1 5/2003 May et al.
 2003/0115289 A1* 6/2003 Chinn et al. 709/219
 2003/0174208 A1 9/2003 Glukhovskiy et al.
 2003/0189094 A1 10/2003 Trabitz
 2003/0195833 A1 10/2003 Baranowski
 2004/0010430 A1 1/2004 Cinquini et al.
 2004/0030601 A1 2/2004 Pond et al.
 2004/0069852 A1 4/2004 Seppinen et al.
 2004/0092825 A1 5/2004 Madar et al.
 2004/0104842 A1 6/2004 Drury et al.
 2004/0124982 A1 7/2004 Kovach

2004/0172262 A1 9/2004 Gonzales et al.
 2004/0178912 A1 9/2004 Smith
 2004/0199061 A1 10/2004 Glukhovskiy
 2004/0243518 A1 12/2004 Clifton et al.
 2005/0024198 A1 2/2005 Ward
 2005/0239402 A1 10/2005 Gioscia et al.
 2005/0278991 A1 12/2005 Araujo
 2006/0069749 A1 3/2006 Herz et al.
 2006/0202827 A1 9/2006 Volpi et al.
 2006/0220868 A1 10/2006 Takasawa et al.
 2007/0255838 A1 11/2007 Hassan et al.
 2007/0273473 A1 11/2007 Bates
 2007/0285207 A1 12/2007 Bates
 2007/0285208 A1 12/2007 Bates
 2007/0285213 A1 12/2007 Bates
 2007/0290807 A1 12/2007 Smith
 2008/0187121 A1* 8/2008 Agarwal et al. 379/218.01
 2008/0319733 A1* 12/2008 Pulz et al. 704/1
 2009/0077100 A1 3/2009 Hancock et al.
 2009/0278688 A1 11/2009 Tuttle
 2009/0289771 A1 11/2009 Tuttle
 2010/0023392 A1 1/2010 Merriman et al.

FOREIGN PATENT DOCUMENTS

JP 52039237 A 3/1977
 JP 01226681 A 9/1989
 JP 2-82889 3/1990
 JP 03272977 A 12/1991
 JP 05017083 A 1/1993
 JP 06058564 A 3/1993
 JP 05201624 A 8/1993
 WO WO-0058752 10/2000

OTHER PUBLICATIONS

Chung, D.D.L., et al., (Mar. 1998), "Carbon Fiber Polymer-Matrix Structural Composite as a Semiconductor", Part of the SPIE Conference on Sensory Phenomena and Measurement Instrumentation for Smart Structures and Materials, San Diego, California, SPIE Vol. 3330, pp. 401 to 409.
 Wang, Shoukai, at al., (1999), "Apparent Negative Electrical Resistance in Carbon Fiber Composites", Composites, Part B. vol. 30, pp. 579-590.
 Yang, Xiaoyu, (Fall 1999), "Carbon Nanotubes: Synthesis, Applications, and Some New Aspects", Thin Films and Nanosynthesis Laboratory, Department of Mechanical and Aerospace Engineering, SUNY at Buffalo, consisting of 32 pages.
 PulsON, (May 2000), "Time Modulated Ultra-Wideband for Wireless Applications", 2000Time-Domain Corporation, Time Domain, Rev. 2, (13 pos.).
 Information sheets on Rapid 2 Application Software Diagnostic Tools for Effective Patient Management for the Given Diagnostic System, Given Imaging, (.COPYRGT. 2001-2002), (2 pages), (www.givenimaging.com).
 Information sheets on Rapid Booster System Increased Productivity for the Given Diagnostic System, Given Imaging, (.COPYRGT. 2001-2003), (2 pages), (www.givenimaging.com).
 D.K. Kahaner (Mar. 16, 1991) "Hitachi 1991 Technology Exhibition, Tokyo," Asian Technology Information Program, pp. 1-14.
 Karen Jacobs (Dec. 7, 1999) "Elevator Maker to Add Commercial Touch," The Wall Street Journal, pp. 1-2.
 Lewis Perdue (Jul. 20, 1999) "Forget Elevator Music, Here Comes Elevator Internet," Internet VC Watch, pp. 1-2.
 Stevens Institute of Technology, Spring 1999 Final Report, pp. 1-12.
 Kenji Yoneda, et al. (Dec. 1997) "Multi-Objective Elevator Supervisory-Control System with Individual Floor-Situation Control," Hitachi Review, p. 1.

* cited by examiner

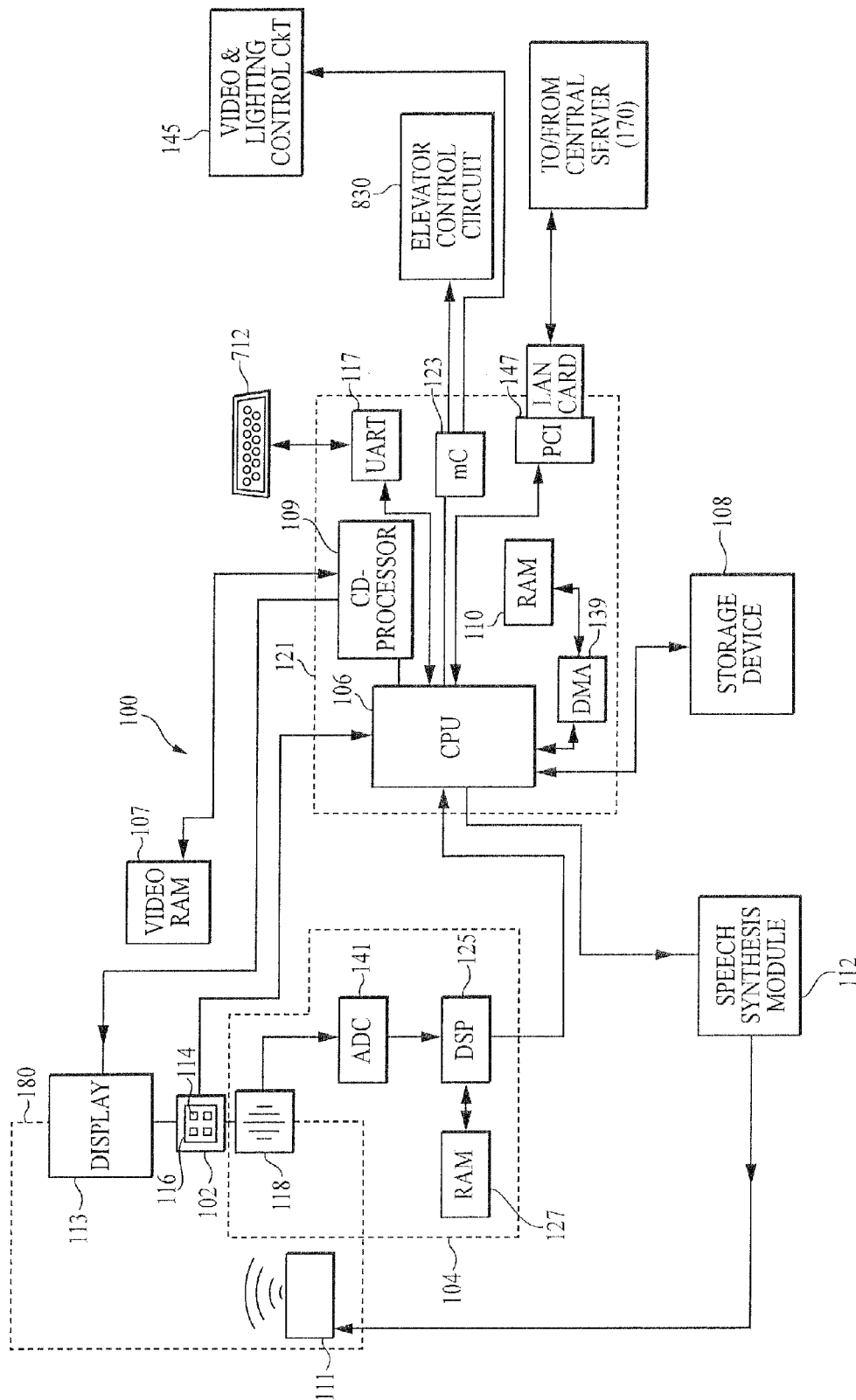
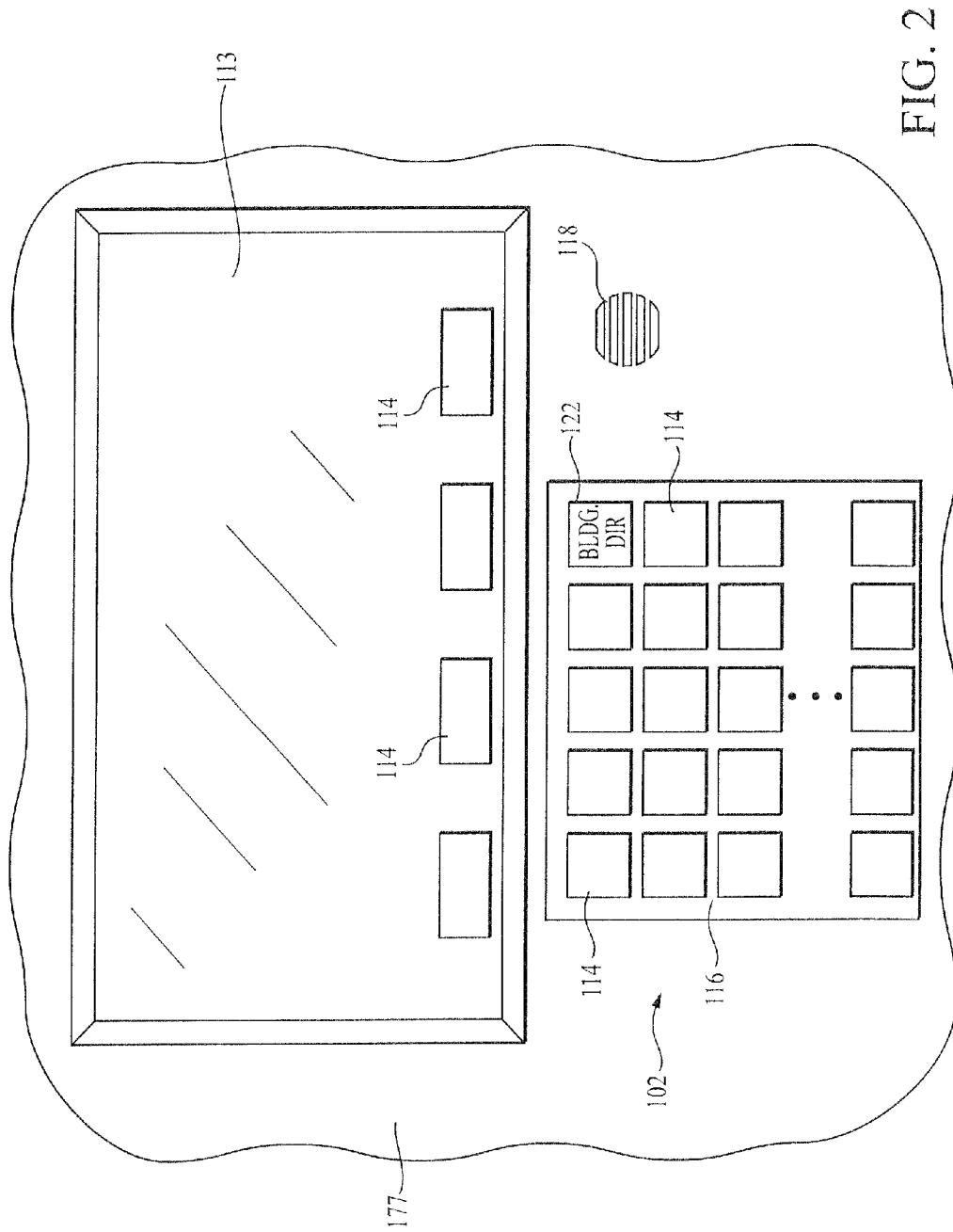


FIG. 1



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