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(54) **MULTIPLE BUTTON INTERACTIVE ELECTRONIC CARD WITH LIGHT SOURCES**

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(52) **U.S. Cl.** **D19/9**

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D19/20-34; 40/124.01-124.15, 672, 661,
40/726, 776; 283/72, 74-75, 105-107, 103,
283/82, 70, 904; 206/385; D21/385; D20/10-11,
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235/380, 382

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,353,064 A	10/1982	Stamm
4,394,654 A	7/1983	Hofmann-Cerfontaine
4,614,861 A	9/1986	Pavlov et al.
4,667,087 A	5/1987	Quintana
4,701,601 A	10/1987	Francini et al.
4,720,860 A	1/1988	Weiss
4,786,791 A	11/1988	Hodama
4,791,283 A	12/1988	Burkhardt
4,797,542 A	1/1989	Hara
5,038,251 A	8/1991	Sugiyama et al.
5,168,520 A	12/1992	Weiss
5,237,614 A	8/1993	Weiss
5,276,311 A	1/1994	Hennige
5,347,580 A	9/1994	Molva et al.
5,361,062 A	11/1994	Weiss et al.

5,412,199 A	5/1995	Finkelstein et al.
5,434,398 A	7/1995	Goldberg
5,434,405 A	7/1995	Finkelstein et al.
5,478,994 A	12/1995	Rahman
5,479,512 A	12/1995	Weiss
5,484,997 A	1/1996	Haynes
5,485,519 A	1/1996	Weiss
5,585,787 A	12/1996	Wallerstein
5,591,949 A	1/1997	Bernstein
5,608,203 A	3/1997	Finkelstein et al.

(Continued)

FOREIGN PATENT DOCUMENTS

JP 05210770 A 8/1993

(Continued)

OTHER PUBLICATIONS

U.S. Appl. No. 60/594,300, Poidomani et al.

(Continued)

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(57) **CLAIM**

The ornamental design for a multiple button interactive electronic card with light sources, as shown and described.

DESCRIPTION

FIG. 1 is a front, bottom, and left side perspective view of our new design for a multiple button interactive electronic card with light sources;

FIG. 2 is a front, top, and left side perspective view thereof;

FIG. 3 is a front side view thereof;

FIG. 4 is a back side view thereof;

FIG. 5 is a top side view thereof;

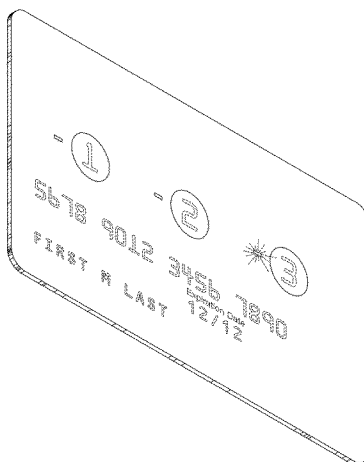
FIG. 6 is a bottom side view thereof;

FIG. 7 is a left side view thereof; and,

FIG. 8 is a right side view thereof.

The broken lines showing environment in the drawings are for illustrative purposes only and form no part of the claimed design.

1 Claim, 5 Drawing Sheets



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U.S. PATENT DOCUMENTS						
5,623,552	A	4/1997	Lane	7,225,994	B2 6/2007	Finkelstein
5,657,388	A	8/1997	Weiss	7,246,752	B2 7/2007	Brown
5,834,747	A	11/1998	Cooper	7,298,243	B2 11/2007	Juels et al.
5,834,756	A	11/1998	Gutman et al.	7,334,732	B2 2/2008	Cooper
5,856,661	A	1/1999	Finkelstein et al.	7,337,326	B2 2/2008	Palmer et al.
5,864,623	A	1/1999	Messina et al.	7,346,775	B2 3/2008	Gasparini et al.
5,907,142	A	5/1999	Kelsey	7,356,696	B1 4/2008	Jakobsson et al.
5,913,203	A	6/1999	Wong et al.	7,357,319	B1 4/2008	Liu et al.
5,937,394	A	8/1999	Wong et al.	7,359,507	B2 4/2008	Kaliski
5,955,021	A	9/1999	Tiffany, III	7,360,688	B1 4/2008	Harris
5,956,699	A	9/1999	Wong et al.	7,363,494	B2 4/2008	Brainard et al.
6,025,054	A	2/2000	Tiffany, III	7,380,710	B2 6/2008	Brown
6,045,043	A	4/2000	Bashan et al.	7,398,253	B1 7/2008	Pinnell
6,076,163	A	6/2000	Hoffstein et al.	7,404,087	B2 7/2008	Teunen
6,085,320	A	7/2000	Kaliski	7,424,570	B2 9/2008	D'Albore et al.
6,095,416	A	8/2000	Grant et al.	7,427,033	B1 9/2008	Roskind
6,130,621	A	10/2000	Weiss	7,454,349	B2 11/2008	Teunen et al.
6,145,079	A	11/2000	Mitty et al.	D582,977	S * 12/2008	Field et al. D19/10
6,157,920	A	12/2000	Jakobsson et al.	7,461,250	B1 12/2008	Duane et al.
6,161,181	A	12/2000	Haynes, III et al.	7,461,399	B2 12/2008	Juels et al.
D436,991	S *	1/2001	Morgante D19/9	7,472,093	B2 12/2008	Juels
6,176,430	B1	1/2001	Finkelstein et al.	7,472,829	B2 1/2009	Brown
6,182,894	B1	2/2001	Hackett et al.	7,494,055	B2 2/2009	Fernandes et al.
6,189,098	B1	2/2001	Kaliski	7,502,467	B2 3/2009	Brainard et al.
6,199,052	B1	3/2001	Mitty et al.	7,502,933	B2 3/2009	Jakobsson et al.
6,206,293	B1	3/2001	Gutman et al.	7,503,485	B1 3/2009	Routhenstein
6,240,184	B1	5/2001	Huynh et al.	7,516,492	B1 4/2009	Nisbet et al.
6,241,153	B1	6/2001	Tiffany, III	7,523,301	B2 4/2009	Nisbet et al.
6,256,873	B1	7/2001	Tiffany, III	7,530,495	B2 5/2009	Cooper
6,269,163	B1	7/2001	Rivest et al.	7,532,104	B2 5/2009	Juels
6,286,022	B1	9/2001	Kaliski et al.	7,543,739	B2 6/2009	Brown et al.
6,308,890	B1	10/2001	Cooper	7,559,464	B2 7/2009	Routhenstein
6,313,724	B1	11/2001	Osterweil	7,562,221	B2 7/2009	Nystrom et al.
6,389,442	B1	5/2002	Yin et al.	7,562,222	B2 7/2009	Gasparini et al.
6,393,447	B1	5/2002	Jakobsson et al.	7,580,898	B2 8/2009	Brown et al.
6,411,715	B1	6/2002	Liskov et al.	7,584,153	B2 9/2009	Brown et al.
D460,455	S *	7/2002	Pentz D14/436	7,591,426	B2 9/2009	Osterweil et al.
6,446,052	B1	9/2002	Juels	7,591,427	B2 9/2009	Osterweil
6,460,141	B1	10/2002	Olden	7,602,904	B2 10/2009	Juels et al.
D467,247	S *	12/2002	Pentz D14/436	D604,359	S * 11/2009	Santos D19/9
6,592,044	B1	7/2003	Wong et al.	7,631,804	B2 12/2009	Brown
6,607,127	B2	8/2003	Wong	7,639,537	B2 12/2009	Sepe et al.
6,609,654	B1	8/2003	Anderson et al.	7,641,124	B2 1/2010	Brown et al.
6,631,849	B2	10/2003	Blossom	7,660,902	B2 2/2010	Graham et al.
6,655,585	B2	12/2003	Shinn	7,828,207	B2 11/2010	Cooper
6,681,988	B2	1/2004	Stack et al.	2001/0034702	A1 10/2001	Mockett et al.
6,705,520	B1	3/2004	Pitroda et al.	2001/0047335	A1 11/2001	Arndt et al.
6,755,341	B1	6/2004	Wong et al.	2002/0059114	A1 5/2002	Cockrill et al.
6,764,005	B2	7/2004	Cooper	2002/0082989	A1 6/2002	Fife et al.
6,769,618	B1	8/2004	Finkelstein	2002/0096570	A1 7/2002	Wong et al.
6,805,288	B2	10/2004	Routhenstein et al.	2002/0120583	A1 8/2002	Keresman, III et al.
6,811,082	B2	11/2004	Wong	2003/0034388	A1 2/2003	Routhenstein et al.
6,813,354	B1	11/2004	Jakobsson et al.	2003/0052168	A1 3/2003	Wong
6,817,532	B2	11/2004	Finkelstein	2003/0057278	A1 3/2003	Wong
6,873,974	B1	3/2005	Schutzer	2003/0116635	A1 6/2003	Taban
6,902,116	B2	6/2005	Finkelstein	2003/0152253	A1 8/2003	Wong
D509,243	S *	9/2005	Hunter et al. D19/10	2003/0163287	A1 8/2003	Vock et al.
6,970,070	B2	11/2005	Juels et al.	2003/0173409	A1 9/2003	Vogt et al.
6,980,969	B1	12/2005	Tuchler et al.	2003/0179909	A1 9/2003	Wong et al.
6,985,583	B1	1/2006	Brainard et al.	2003/0179910	A1 9/2003	Wong
6,991,155	B2	1/2006	Burchette, Jr.	2003/0226899	A1 12/2003	Finkelstein
7,013,030	B2	3/2006	Wong et al.	2004/0035942	A1 2/2004	Silverman
7,035,443	B2	4/2006	Wong	2004/0133787	A1 7/2004	Doughty
7,039,223	B2	5/2006	Wong	2004/0162732	A1 8/2004	Rahim et al.
7,044,394	B2	5/2006	Brown	2004/0172535	A1 9/2004	Jakobsson
7,051,929	B2	5/2006	Li	2004/0177045	A1 9/2004	Brown
7,083,094	B2	8/2006	Cooper	2005/0043997	A1 2/2005	Sahota et al.
7,100,049	B2	8/2006	Gasparini et al.	2005/0080747	A1 4/2005	Anderson et al.
7,100,821	B2	9/2006	Rasti	2005/0086160	A1 4/2005	Wong et al.
7,111,172	B1	9/2006	Duane et al.	2005/0086177	A1 4/2005	Anderson et al.
7,114,652	B2	10/2006	Moullette et al.	2005/0116026	A1 6/2005	Burger et al.
7,136,514	B1	11/2006	Wong	2005/0119940	A1 6/2005	Concilio et al.
7,140,550	B2	11/2006	Ramachandran	2005/0154643	A1 7/2005	Doan et al.
7,163,153	B2	1/2007	Blossom	2005/0228959	A1 10/2005	D'Albore et al.
7,195,154	B2	3/2007	Routhenstein	2006/0000900	A1 1/2006	Fernandes et al.
7,197,639	B1	3/2007	Juels et al.	2006/0037073	A1 2/2006	Juels et al.
7,219,368	B2	5/2007	Juels et al.	2006/0041759	A1 2/2006	Kaliski et al.
7,225,537	B2	6/2007	Reed	2006/0085328	A1 4/2006	Cohen et al.
				2006/0091223	A1 5/2006	Zellner

2006/0161435	A1	7/2006	Atef et al.	2008/0302877	A1	12/2008	Musella et al.
2006/0163353	A1	7/2006	Moulette et al.	2009/0013122	A1	1/2009	Sepe et al.
2006/0174104	A1	8/2006	Crichton et al.	2009/0036147	A1	2/2009	Romano
2006/0196931	A1	9/2006	Holtmanns et al.	2009/0046522	A1	2/2009	Sepe et al.
2006/0256961	A1	11/2006	Brainard et al.	2009/0108064	A1	4/2009	Fernandes et al.
2007/0034700	A1	2/2007	Poidomani et al.	2009/0150295	A1	6/2009	Hatch et al.
2007/0114274	A1	5/2007	Gibbs et al.	2009/0152365	A1	6/2009	Li et al.
2007/0124321	A1	5/2007	Szydlo	2009/0242648	A1	10/2009	Di Sirio et al.
2007/0152070	A1	7/2007	D'Albore	2009/0244858	A1	10/2009	Di Sirio et al.
2007/0152072	A1	7/2007	Frallicciardi et al.	2009/0253460	A1	10/2009	Varone et al.
2007/0153487	A1	7/2007	Frallicciardi et al.	2009/0255996	A1	10/2009	Brown et al.
2007/0174614	A1	7/2007	Duane et al.	2009/0290704	A1	11/2009	Cimino
2007/0192249	A1	8/2007	Biffle et al.	2009/0303885	A1	12/2009	Longo
2007/0241183	A1	10/2007	Brown et al.	2011/0028184	A1	2/2011	Cooper
2007/0241201	A1	10/2007	Brown et al.				
2007/0256123	A1	11/2007	Duane et al.				
2007/0291753	A1	12/2007	Romano				
2008/0005510	A1	1/2008	Sepe et al.				
2008/0008315	A1	1/2008	Fontana et al.				
2008/0008322	A1	1/2008	Fontana et al.				
2008/0010675	A1	1/2008	Massascusa et al.				
2008/0016351	A1	1/2008	Fontana et al.				
2008/0019507	A1	1/2008	Fontana et al.				
2008/0028447	A1	1/2008	O'Malley et al.				
2008/0040271	A1	2/2008	Hammad et al.				
2008/0040276	A1	2/2008	Hammad et al.				
2008/0058016	A1	3/2008	Di Maggio et al.				
2008/0059379	A1	3/2008	Ramaci et al.				
2008/0096326	A1	4/2008	Reed				
2008/0126398	A1	5/2008	Cimino				
2008/0128515	A1	6/2008	Di Iorio				
2008/0148394	A1	6/2008	Poidomani et al.				
2008/0201264	A1	8/2008	Brown et al.				
2008/0209550	A1	8/2008	Di Iorio				
2008/0288699	A1	11/2008	Chichierchia				
2008/0294930	A1	11/2008	Varone et al.				

FOREIGN PATENT DOCUMENTS

WO	WO9852735	11/1998
WO	WO0247019	6/2002
WO	WO2006066322	6/2006
WO	WO2006080929	8/2006
WO	WO2006105092	10/2006
WO	WO2006116772	11/2006
WO	WO2008064403	6/2008

OTHER PUBLICATIONS

U.S. Appl. No. 60/675,388, Poidomani et al.
The Bank Credit Card Business. Second Edition, American Bankers Association, Washington, D.C., 1996.
A Day in the Life of a Flux Reversal. <http://www.phrack.org/issues.html?issue=37&id=6#article>. As viewed on Apr. 12, 2010.
Dynamic Virtual Credit Card Numbers. <http://homes.cerias.purdue.edu/~jtli/paper/fc07.pdf>. As viewed on Apr. 12, 2010.
English translation of JP 05210770 A.

* cited by examiner

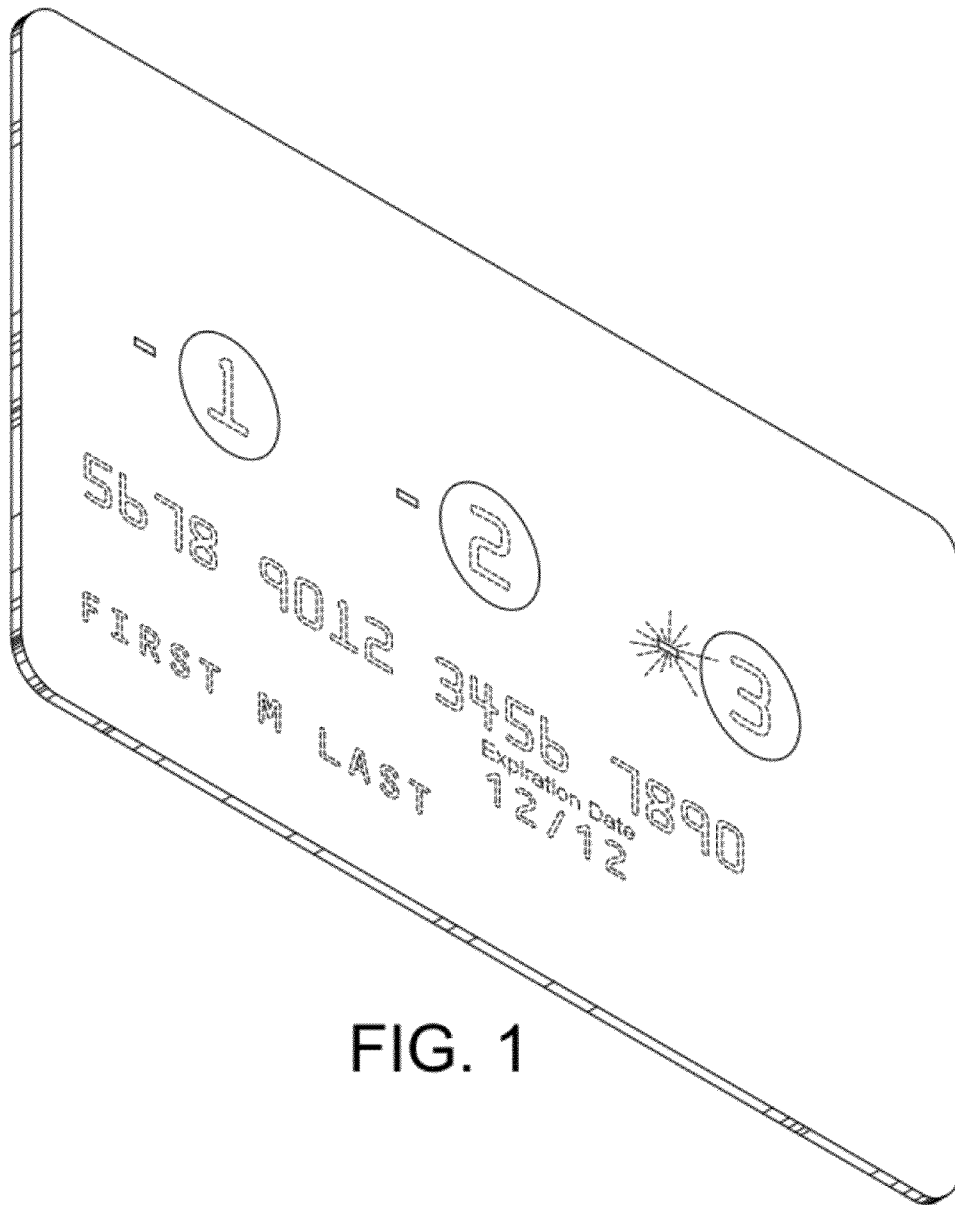


FIG. 1

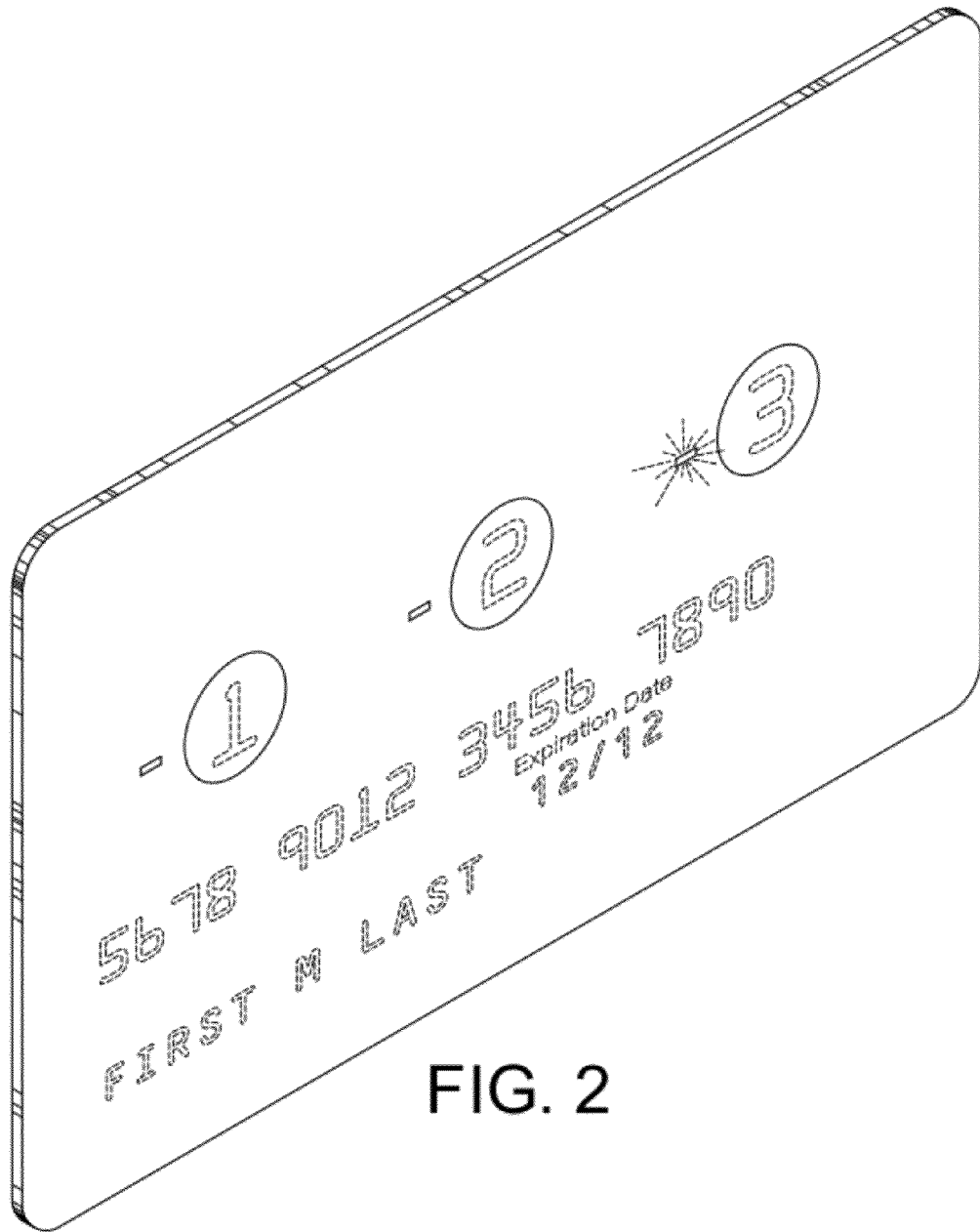


FIG. 2

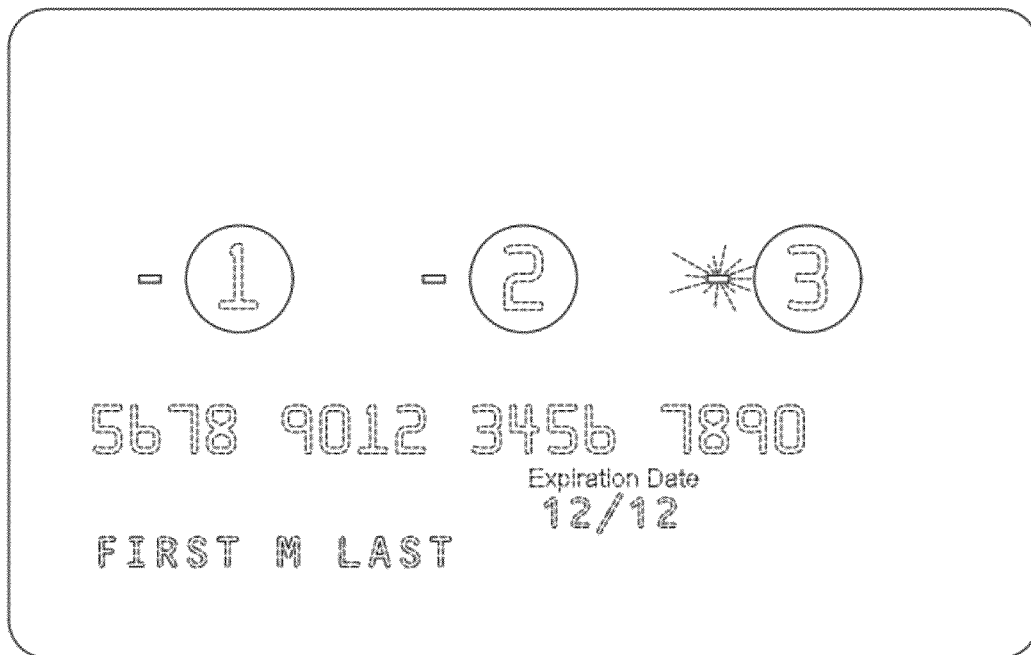


FIG. 3



FIG. 4

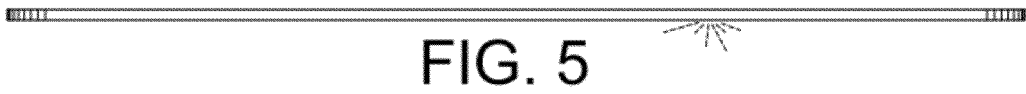


FIG. 5

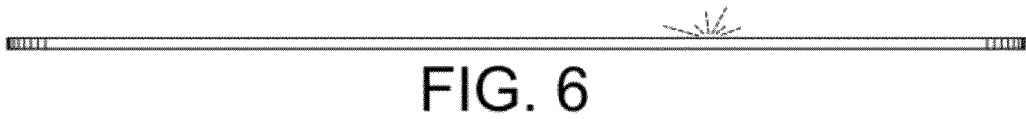


FIG. 6



FIG. 7



FIG. 8