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(54) CREDIT CARD SYSTEM AND METHOD

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(*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

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(30) Foreign Application Priority Data

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(52)	U.S. Cl.		705/1 ; 705/39; 705/44;
` ′			235/380
(58)	Field of S	Search	705/1, 35, 38,
` ′			705/39, 41, 26, 44; 235/379, 380

(56) References Cited

U.S. PATENT DOCUMENTS

3,938,091 A	2/1976	Atalla et al.
4,707,592 A	11/1987	Ware
4,720,860 A	1/1988	Weiss
4,747,050 A	5/1988	Brachtl et al.
4.797.920 A	1/1989	Stein

4,856,062 A	8/1989	Weiss
4,941,090 A		McCarthy
4,988,849 A	1/1991	Sasaki et al.
5,023,904 A	6/1991	Kaplan et al.
5,093,861 A	3/1992	Graham
5,117,355 A	5/1992	McCarthy
5,130,519 A	7/1992	Bush et al.
5,163,097 A	11/1992	Pegg
5,097,505 A	3/1993	Weiss
5,193,114 A	3/1993	Moseley

(List continued on next page.)

FOREIGN PATENT DOCUMENTS

EP 0 081 921 6/1983

(List continued on next page.)

OTHER PUBLICATIONS

Ketchpel et al. "Shopping Models: A Flexible Architecture for Information Commerce" Library Project Working Paper SIDL-WP-19960052, 1996.*

Web page for "Virtual Credit Card (VCC)" found at http://www.geocities.com/Eureka/Park/5014/vcc.htm bearing the parent, putative date of Aug. 9, 1998, No Author. Durbin, "ASTA Unit: No Active Status for SATO," Travel

Weekly, Jan. 26, 1987, vol. 45, p. 92.

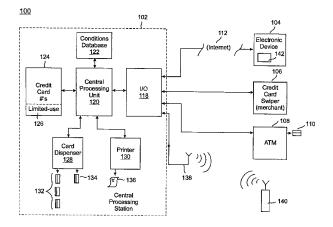
(List continued on next page.)

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(57) ABSTRACT

A credit card system is provided which has the added feature of providing additional limited-use credit card numbers and/or cards. These numbers and/or cards can be used for a single transaction, thereby reducing the potential for fraudulent reuse of these numbers and/or cards. The credit card system finds application to "card remote" transactions such as by phone or Internet. Additionally, when a single use credit card is used for "card present" transactions, so called "skimming" fraud is eliminated. Various other features enhance the credit card system which will allow secure trade without the use of elaborate encryption techniques.

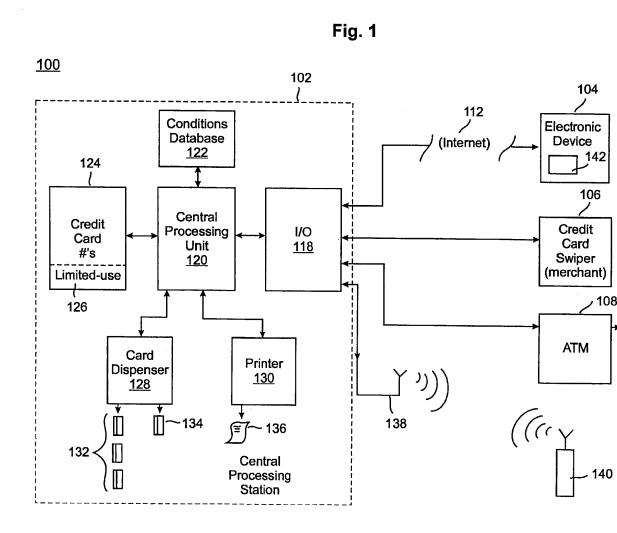
24 Claims, 9 Drawing Sheets





		U.S.	PATENT	DOCUMENTS	WO 99 49424 * 9/1999
	£ 106 040		2/1002	T -141 -4 -1	OTHER PUBLICATIONS
	5,196,840 5,202,826			Leith et al. McCarthy	
	5,202,820			Parrillo	Jones, "ACE Server to Ship for NT," InfoWorld, Feb. 3,
	5,287,268			McCarthy	1997, vol. 19, No. 5, p. 8.
	5,317,636			Vizcaino	Yamada, "Security Dynamics Plans to Launch Reseller
	5,326,960			Tannenbaum	Program," Computer Reseller News, Aug. 19, 1996, No.
	5,343,529			Goldfine et al.	697, p. 65.
	5,350,906			Brody et al.	Davis, "Vendors Put New Spin on Securtiy Wares," Com-
	5,363,449	A	11/1994	Bestock	munications Week, Mar. 27, 1995, No. 549, p. 5.
	5,428,684	Α	6/1995	Akiyama et al.	"Stokell Security Dynamics & Cisco Offer 'Crackerproof'
	5,478,994	A	12/1995	Rahman et al.	Routers," Newsbytes News Network, Jun. 20, 1994.
	5,479,494			Clitherow	Highland, "With Tokens, It's a New Password Every Time,"
	5,485,510	A		Colbert	Computerworld, Jun. 11, 1990, vol. 24, No. 24, pp, 88–89.
	5,577,109			Stimson et al.	"Security Dynamics Announces ACE/Client for NT/RAS,"
	5,592,553			Guski et al.	Business Wire, Mar. 27, 1995, No Author.
	5,606,614			Brady et al.	"Security Dynamics Expands Level of User Authentication
	5,627,355			Rahman et al.	for Internet Security," Business Wire, Mar. 27, 1995, No
	5,671,279			Elgamal	
	5,677,955			Doggett et al.	Author.
	5,694,471			Chen et al.	Brown, "TGV Launches Token-Based Security Ware,"
	5,715,314 5,721,768			Payne et al. Stimson et al.	Communications Weeks, Oct. 31, 1994, No. 529, p. 4.
	5,724,424			Gifford	"CYRPTOCard 2: CRYPTOCard Enables Companies and
	5,748,908		5/1998		ISPs to Secure Intranet Access with Authentication Tokens
	5,757,917			Rose et al.	at Much Lower Costs," Business Wire, Jun. 29, 1998, No
	5,768,381			Hawthorne	Author.
	5,777,306			Masuda	"ENIGMA LOGIC: Enigma Logic Introduces SafeWord
	5,825,881			Colvin, Sr.	SofToken," Business Editors & Computer Writers Jun. 1,
	5,826,241			Stein et al.	1994, No Author.
	5,826,243	A	10/1998	Musmanno et al.	Lamond, Credit Card Transaction Real World and Online,
	5,832,087	Α	11/1998	Hawthorne	1996, http://www.virtualschool.edu/mon/electronicprop-
	5,864,830			Armetta et al.	erty/clamond/creditcard.htm.
	RE36,116			McCarthy	Wiggins, "Putting Risk in Perspective," http://www.webref-
	5,883,801			Franklin et al 304/479.02	erence.com/outlook/column3/page4.html, 1997.
	5,890,137			Koreeda	Crotch-Harvey, Electronic Money and the Law -The Impli-
	5,893,907			Ukuda 705/35	cations, http://www.smartcard.co.uk/articles/electronicmon-
	5,903,878			Talati et al.	ev.html.
	5,953,710			Fleming 705/35 X	
	5,956,699			Wong et al 705/39	B. Ives & M. Earl, Mondex International: Reengineering
	5,984,180 6,000,832			Albrecht Franklin et al.	Money, http://isds.bus.isu.edu/cases/mondex.html, 1997.
	6,029,890			Austin	V. Moscaritolo, Digital Commerce for the Rest of US Apple
	6,144,948			Walker et al.	in a Geodesic Economy, http://www.shipwright.com/rants/
	6,227,447			Campisano	rant 15.html, Sep. 4, 1996.
	6,267,292			Walker et al.	Herscheim, "Smart Card," http://disc.cba.uh.edu/~rhirsch/
	6,339,766			Gephart	fall96/neepa.htm, Sep. 24, 1996.
	6,341,724			Campisano	NetChex: "NetChex Offers Secure Checking to the Web,"
	6,375,084			Stanford et al.	http://ntrg.cs.tcd.ie/mepeirce/Project/Press/netchex.html,
		D T.	ON DIES	AND DOOLD CONTROL	Jan. 1995.
	FO	REI	JN PAIE	NT DOCUMENTS	"NetChex -a short brief," http://www.tml.hut.fi/Studies/
EP		51	15448	12/1992	Tik-110.350/1997/Ecommerce/netchex 5.html, 1997.
FR			1 996	11/1991	GE Capitol Financial, Inc., "Corporate E-Card and E-Com-
GB			7 831	2/1999	merce Glossary," http://www.ge.com/capital/cardservices/
GB	2361790 A 1		51790 A	10/2001	corpcard/5news5.html.
JP	6-282556		32556	10/1994	Agora: "A minimal Distributed Protocol of Electronic Com-
WO			12680	8/1991	merce," USENIX Workshop on Electronic Commerce,
WO	*			8/1991	http://www.usenix.org/publications/library/proceedings/
WO			08756	3/1996	ec96/full_papers/grabber/html/ held from Nov. 18–21, 1996.
WO			15893	5/1997	
WO	WC	98/2	26376 A2	6/1998	* cited by examiner





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Fig. 2

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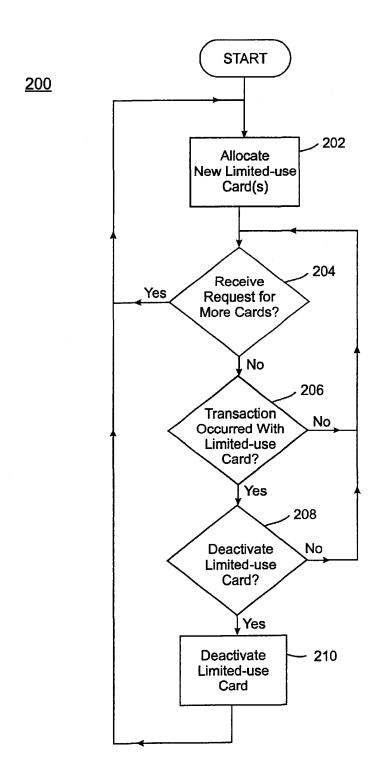
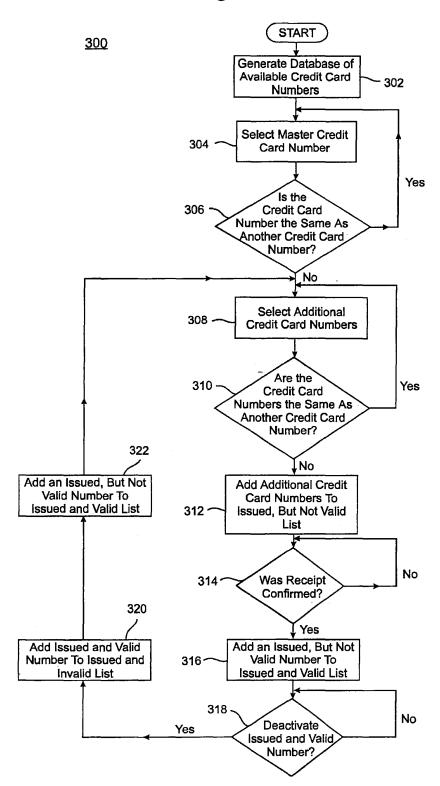


Fig. 3

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