

United States Patent [19]

Chou et al.

[54] APPARATUS AND METHOD FOR PREVENTING THEFT OF COMPUTER DEVICES

- [76] Inventors: Wayne W. Chou, 25 Hauley Pl., Ridgefield, Conn. 06877; Laszlo Elteto, 86 Snow Crystal La., Stamford, Conn. 06905; Joseph M. Kulinets, 40 Meredith La., Stamford, Conn. 06903; Joseph LaRussa, 43 Lowell St., Hicksville, N.Y. 11801
- [21] Appl. No.: 684,659
- [22] Filed: Jul. 19, 1996
- [51] Int. Cl.⁶ G06F 7/00
- [52] U.S. Cl. 395/188.01; 395/652

[56] References Cited

U.S. PATENT DOCUMENTS

1 (21 007	4 4 0 0 7	CL 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1
4,634,807	1/1987	Chorley et al 178/22.08
4,757,533	7/1988	Allen et al 380/25
4,864,494	9/1989	Kobus, Jr 395/186
4,866,769	9/1989	Karp 380/4
4,937,861	6/1990	Cummins 380/2
5,007,082	4/1991	Cummins 380/4
5,097,504	3/1992	Camion et al 380/23
5,146,499	9/1992	Geffrotin 380/23
5,214,695	5/1993	Arnold et al 380/4
5,222,135	6/1993	Hardy et al 380/4
5,325,430	6/1994	Smyth et al 380/4
5,363,446	11/1994	Ruppertuz et al 380/4
5,369,707	11/1994	Follendore, III 380/25
5,377,269	12/1994	Heptig et al
5,402,492	3/1995	Goodman et al 380/25
5,410,699	4/1995	Bealkowski et al 395/700
5,421,006	5/1995	Jablon et al 395/183.14
5,432,939	7/1995	Blackledge, Jr. et al 395/700
5,448,045	9/1995	Clark

[11] Patent Number: 5,892,906

[45] **Date of Patent:** Apr. 6, 1999

5,483,596	1/1996	Rosenow et al 380/25
5,483,649	1/1996	Kuznetsov et al 395/186
5,497,421	3/1996	Kaufman et al 380/23
5,535,409	7/1996	Larvoire et al 395/188.01
5,586,301	12/1996	Fisherman et al 395/186
5,615,263	3/1997	Takahashi 380/4
5,707,777	1/1998	Sloan et al 395/188.01

Primary Examiner-Joseph E. Palys

Attorney, Agent, or Firm-Pollock, Vande Sande & Amernick

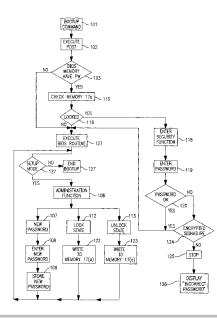
[57]

25

ABSTRACT

Apparatus and method for discouraging computer theft. The apparatus and method requires that a password or other unique information be supplied to the computer before the computer BIOS routines can be completely executed. A BIOS memory storing the BIOS routines includes a security routine which will determine whether or not the required password entered by the user, or a known quantity read from an externally connected memory device is present. The security function stored within the BIOS memory also includes an administration function which permits the computer to be either placed in a locked state, thereby requiring password or the known quantity read from an externally connected memory device to be present each time the computer is booted up. The administration function also permits an unlock state which permits the computer boot up process to complete without entering any password or externally supplied quantity. The external memory location is consulted during each boot up sequence, to determine whether the computer has been placed in the locked or in the unlocked state. If the security depends upon the supply of the known quantity from an externally connected memory device, the computer will be inoperable to anyone not in possession of the external memory device. In the event that the external memory location bearing the locked or unlocked code is removed, the security function assumes the computer to be in the locked state, thus frustrating avoidance of the locked state by tampering with the external memory.

16 Claims, 5 Drawing Sheets



Find authenticated court documents without watermarks at docketalarm.com.

 \bigcirc

Α

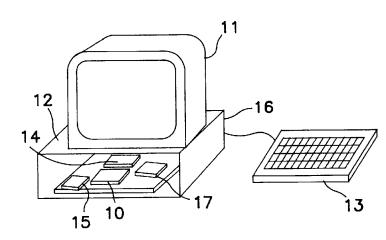


FIG. I

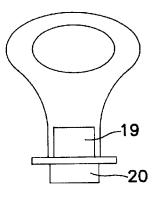
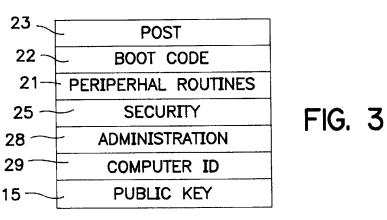
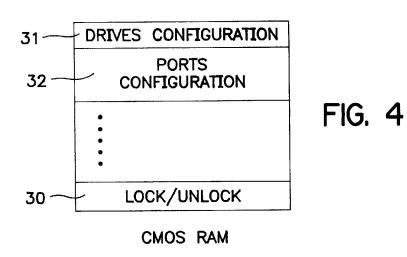


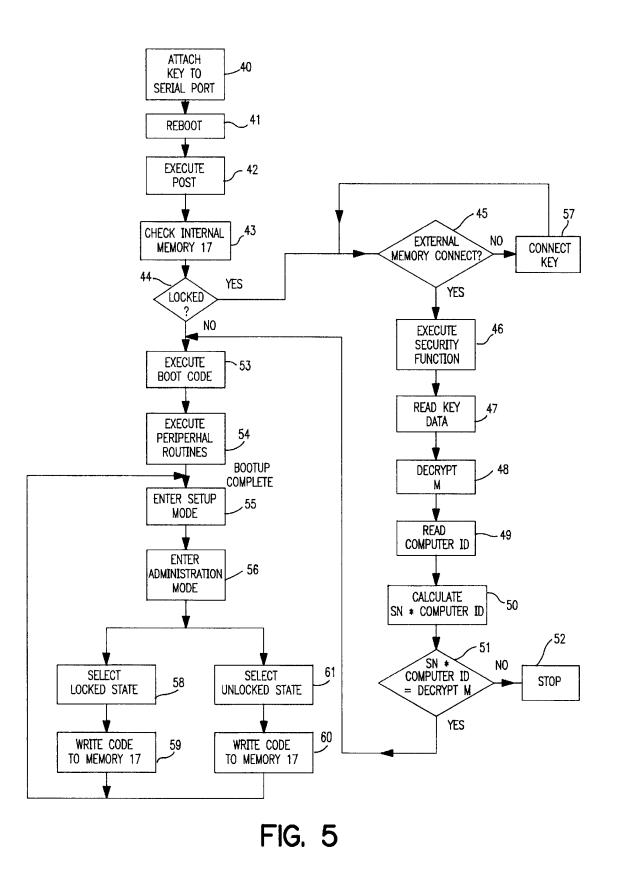
FIG.2



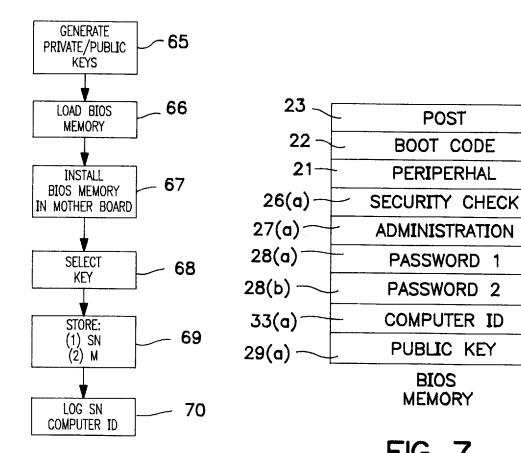
BIOS MEMORY



KEI RM Find authenticated court documents without watermarks at <u>docketalarm.com</u>.



U.S. Patent





POST

BOOT CODE

PERIPERHAL

PASSWORD 1

PASSWORD 2

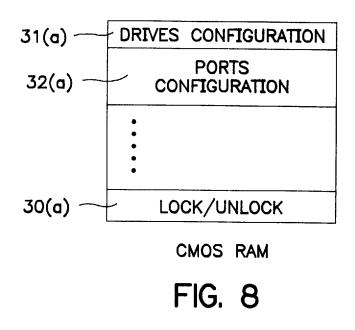
PUBLIC KEY

BIOS MEMORY

FIG. 6

Δ

R



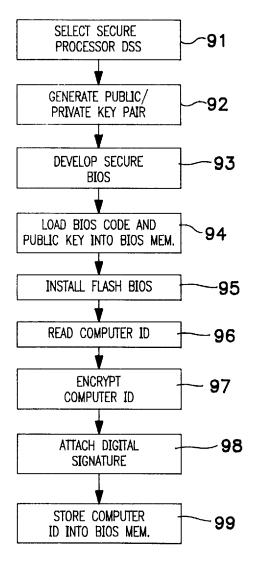


FIG. 9

DOCKET A L A R M Find authenticated court documents without watermarks at <u>docketalarm.com</u>.

DOCKET A L A R M



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.