## UNITED STATES PATENT AND TRADEMARK OFFICE

\_\_\_\_

#### BEFORE THE PATENT TRIAL AND APPEAL BOARD

\_\_\_\_\_

APPLE INC., Petitioner

V.

CPC Patent Technologies PTY, LTD., Patent Owner

\_\_\_\_

Inter Partes Review Case No. IPR2022-00602

U.S. Patent No. 9,665,705

### **DECLARATION OF DR. ANDREW SEARS**



## TABLE OF CONTENTS

I.	INTRODUCTION	10
A	MATERIALS CONSIDERED.	14
II.	LEGAL FRAMEWORK	16
A	. Analogous Art	17
В	OBVIOUSNESS	17
C	SECONDARY CONSIDERATIONS OF NON-OBVIOUSNESS	23
III.	CLAIM CONSTRUCTION	24
A	Non-Construed Claim Terms.	24
В	CONSTRUED CLAIM TERMS	24
IV.	BACKGROUND OF TECHNOLOGY	27
A	BIOMETRIC ACCESS SYSTEMS	27
В	HARDWARE COMPONENTS OF A BIOMETRIC ACCESS SYSTEM	36
C	SECURE ACCESS SIGNAL	40
D	INPUTTING A SERIES OF ENTRIES FOR INVOKING FUNCTIONS IN A BIOMETRIC ACCESS SYSTEM	43
E.	PROVIDING DIFFERENT TYPES OF ACCESS	47
V.	OPINIONS REGARDING THE '705 PATENT AND PRIOR ART	54
A	DESCRIPTION OF THE ALLEGED INVENTION OF THE '705 PATENT	55
В	OPINIONS REGARDING MATHIASSEN	59
C	OPINIONS REGARDING MCKEETH	65
D	OPINIONS REGARDING ANDERSON	68
E.	Brief Overview of the Opinions on the '705 Patent	73
VI.	OVERVIEW OF MATHIASSEN'S ARCHITECTURE	76
VII.	GROUND 1: OPINIONS REGARDING THE COMBINATION OF <i>MATHIASSEN</i> , <i>MCKEETH</i> , AND <i>ANDERSON</i>	79



A.	CLAIM 1	79
1.	Claim 1(Pre): "A system for providing secure access to a controlled item, the system comprising:"	79
2.	Claim 1(a): "a memory comprising a database of biometric signatures;"	84
3.	Claim 1(b): "a transmitter sub-system comprising:"	88
4.	Claim 1(b1): "a biometric sensor configured to receive a biometric signal;"	91
5.	Claim 1(b2): "a transmitter sub-system controller configured to match the biometric signal against members of the database of biometric signatures to thereby output an accessibility attribute;"	92
6.	Claim 1(b3): "a transmitter configured to emit a secure access signal conveying information dependent upon said accessibility attribute"	
7.	Claim 1(c)-1(c1)	127
	Claim 1(c): "a receiver sub-system comprising: a receiver sub-system controller configured to"	127
	Claim 1(c1): "receive the transmitted secure access signal"	127
8.	Claim 1(c2): "provide conditional access to the controlled item dependent upon said information"	133
9.	Claim 1(d): "wherein the transmitter sub-system controller is further configured to"	135
10	Claim 1(d1): "receive a series of entries of the biometric signal, said series being characterized according to at least one of the number of said entries and a duration of each said entry"	135
11	Claim 1(d2): "map said series into an instruction"	156
12	Claim 1(d3): "populate the database according to the instruction"	160
13	Claim 1(e): "wherein the controlled item is one of: a locking mechanism of a physical access structure or an electronic lock on an electronic computing device"	173



B.	CLAIM 4	.174
	CLAIM 4: "THE SYSTEM ACCORDING TO CLAIM 1, WHEREIN THE BIOMETRIC SENSOR IS RESPONSIVE TO ONE OF VOICE, RETINAL PATTERN, IRIS PATTERN, FACE PATTERN, AND PALM CONFIGURATION, AND/OR THE DATABASE OF BIOMETRIC SIGNATURES IS LOCATED IN AT LEAST ONE OF THE TRANSMITTER SUB-SYSTEM AND THE RECEIVER SUB-SYSTEM."	174
C.	CLAIM 6	.175
1.	Claim 6(a): "The system as claimed in claim 1, wherein the biometric sensor is further configured to authenticate the identity of a user;"	. 175
2.	Claim 6(b): "wherein the transmitter is further configured to transmit information capable of granting access to the controlled item using a secure wireless signal dependent upon a request from the user and the authentication of the user identity;"	. 176
3.	Claim 6(c): "the system further comprising a control panel configured to receive the information and provide the secure access requested."	.178
D.	CLAIM 10	.180
1.	Claim 10(Pre): "A transmitter sub-system for operating a system for providing secure access to a controlled item, wherein the transmitter sub-system comprises:"	. 180
2.	Claim 10(a): "a biometric sensor configured to receiving a biometric signal;"	.180
3.	Claim 10(b): "a controller configured to match the biometric signal against members of a database of biometric signatures to thereby output an accessibility attribute;"	. 181
4.	Claim 10(c): a transmitter configured to emit a secure access signal conveying information dependent upon said accessibility attribute;"	. 181
5.	Claim $10(d)$ : "wherein the controller is further configured to:"	. 181
6.	Claim $10(d1)$ : "receive a series of entries of the biometric signal, said series being characterized according to at least one	



## Declaration of Dr. Andrew Sears U.S. Patent No. 9,665,705

		of the number of said entries and a duration of each said entry;"	181
	7.	Claim 10(d2): "map said series into an instruction;"	181
	8.	Claim 10(d3): "populate the database according to the instruction,"	181
	9.	Claim 10(e): "wherein the controlled item is one of: a locking mechanism of a physical access structure or an electronic lock on an electronic computing device."	181
E.		CLAIM 11	181
	1.	Claim 11(Pre1): "A method for providing secure access to a controlled item in a system comprising"	182
	2.	Claim 11(Pre2): "a database of biometric signatures;"	182
	3.	Claim 11(Pre3): "a transmitter sub-system comprising a biometric sensor configured to receive a biometric signal, and a transmitter configured to emit a secure access signal capable of granting access to the controlled item;"	182
	4.	Claim 11(Pre4): "a receiver sub-system comprising a receiver sub-system controller configured to receive the transmitted secure access signal, and provide conditional access to the controlled item dependent upon information in said secure access signal,"	189
	5.	Claim 11(a): "the method comprising: populating the database of biometric signatures by:"	191
	6.	Claim 11(a1)-(a2) "receiving a series of entries of the biometric signal;" and "determining at least one of the number of said entries and a duration of each said entry	191
	7.	Claim 11(a3): "mapping said series into an instruction;"	191
	8.	Claim 11(a4): "populating the database according to the instruction;"	191
	9.	Claim 11(b): "receiving the biometric signal;"	192
	10.	Claim 11(c): "matching the biometric signal against members of the database of biometric signatures to thereby output an accessibility attribute:"	192



# DOCKET

## 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.

