Patents
&
Information Technology
(Basics Of Patenting)

PG Diploma In Cyber Law

NALSAR University of Law, Hyderabad

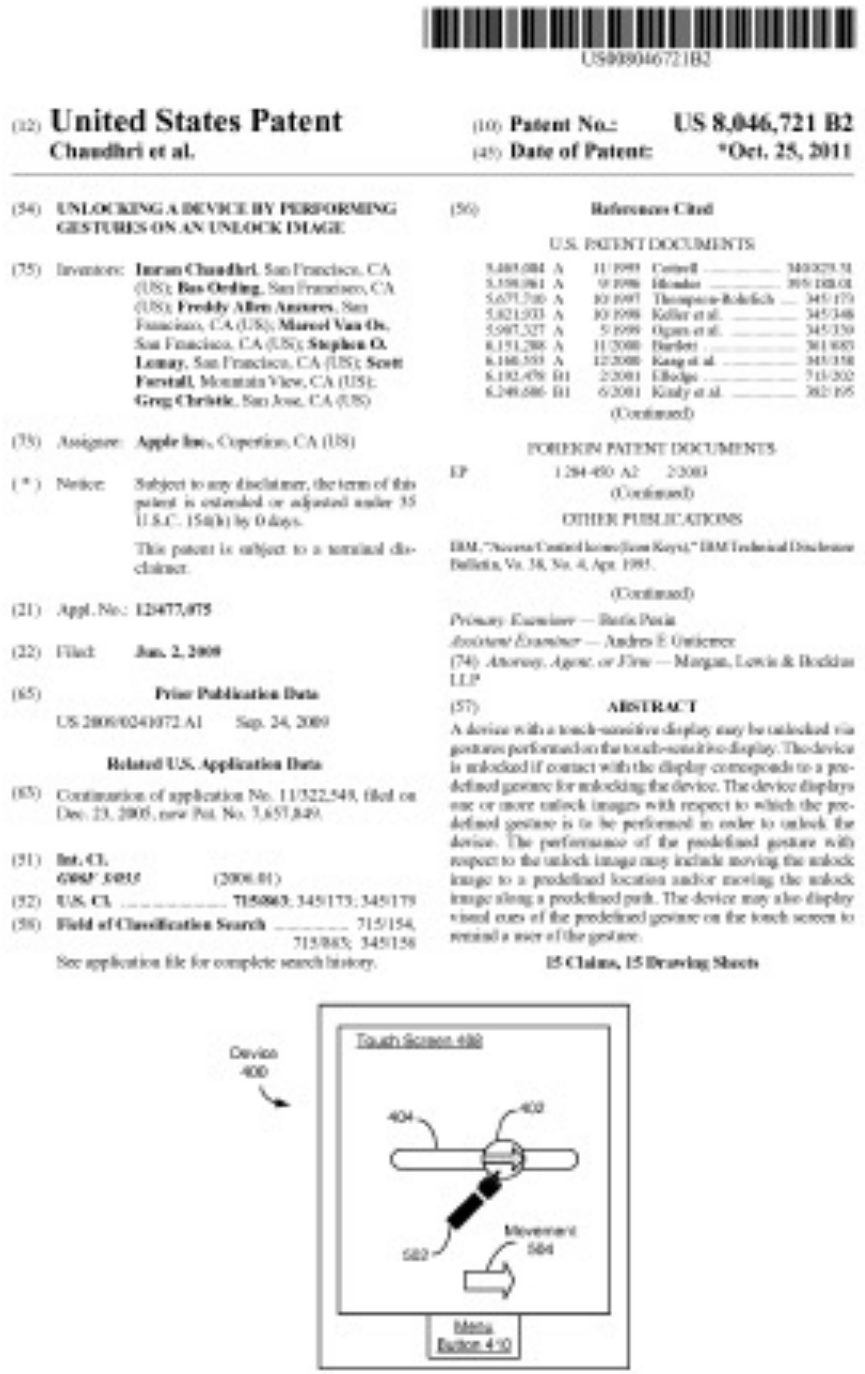
Contact Class; December 2021.

Types of Property

- Real
  - *Land*
- Personal
  - *Cars, jewelry, clothing*
- Easements
  - *Non-corporal interest in real property*
  - *Railroads, utilities*
- Intellectual
  - *Patents, copyrights and trademarks*

Patents

- Grant of a property right to the inventor
- Issued by the ***Patent and Trademark Office***
- Term of a new patent is ***20 years*** from the date on which the application for the patent was filed.
- Patent grants are ***territorial*** - effective only within the country of grant



US008046721B2

(12) **United States Patent**
Chaudhri et al.

(10) **Patent No.: US 8,046,721 B2**
(45) **Date of Patent: *Oct. 25, 2011**

(54) **UNLOCKING A DEVICE BY PERFORMING GESTURES ON AN UNLOCK IMAGE**

(75) Inventors: **Imran Chaudhri**, San Francisco, CA (US); **Bas Ording**, San Francisco, CA (US); **Freddy Allen Anzures**, San Francisco, CA (US); **Marcel Van Os**, San Francisco, CA (US); **Stephen O. Lemay**, San Francisco, CA (US); **Scott Forstall**, Mountain View, CA (US); **Greg Christie**, San Jose, CA (US)

(73) Assignee: **Apple Inc.**, Cupertino, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **12/477,075**

(22) Filed: **Jun. 2, 2009**

(65) **Prior Publication Data**

US 2009/0241072 A1 Sep. 24, 2009

Related U.S. Application Data

(63) Continuation of application No. 11/322,549, filed on Dec. 23, 2005, now Pat. No. 7,657,849.

(51) **Int. Cl.**
G06F 3/041 (2006.01)

(52) **U.S. Cl.** **715/863**; 345/173; 345/179

(58) **Field of Classification Search** 715/154, 715/863; 345/158

See application file for complete search history.

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Primary Examiner — Boris Pesin
Assistant Examiner — Andres E Gutierrez
(74) *Attorney, Agent, or Firm* — Morgan, Lewis & Bockius LLP

(57) **ABSTRACT**

A device with a touch-sensitive display may be unlocked via gestures performed on the touch-sensitive display. The device is unlocked if contact with the display corresponds to a predefined gesture for unlocking the device. The device displays one or more unlock images with respect to which the predefined gesture is to be performed in order to unlock the device. The performance of the predefined gesture with respect to the unlock image may include moving the unlock image to a predefined location and/or moving the unlock image along a predefined path. The device may also display visual cues of the predefined gesture on the touch screen to remind a user of the gesture.

15 Claims, 15 Drawing Sheets

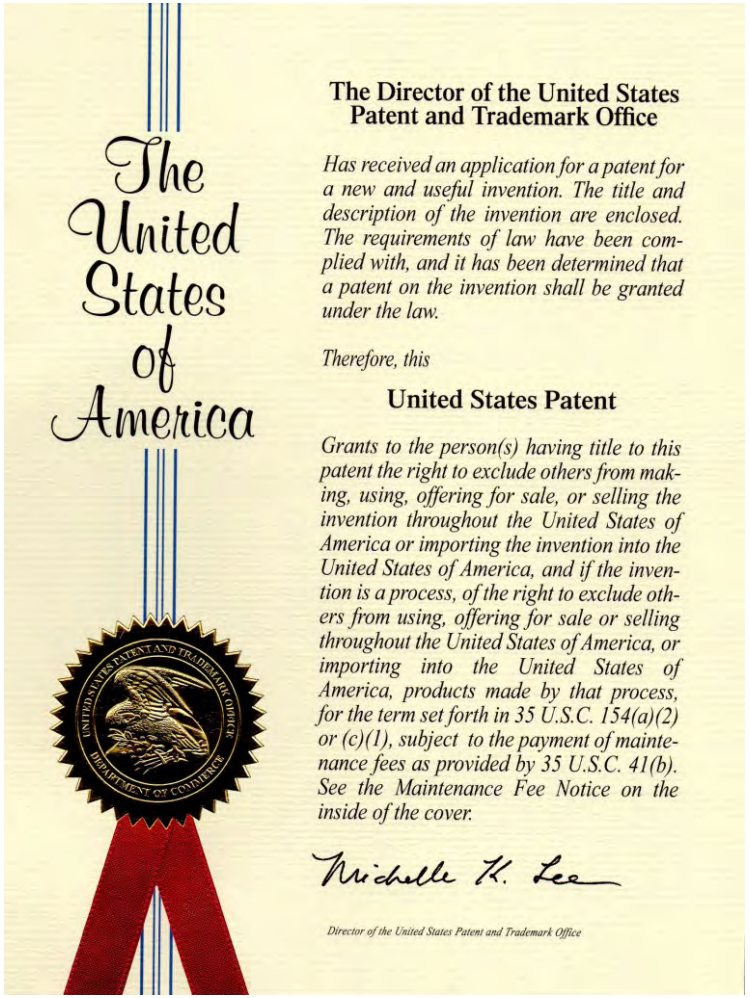
Patent Right

- ✓Right to exclude others
- ✓A patent is not a grant of a right to make, use or sell - a defensive right
- ✓Grant of patent in return for full disclosure

TRIPS – Article 27(2)

Patentable Subject Matter

Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect *ordre public* or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law.



The United States of America

The Director of the United States Patent and Trademark Office

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

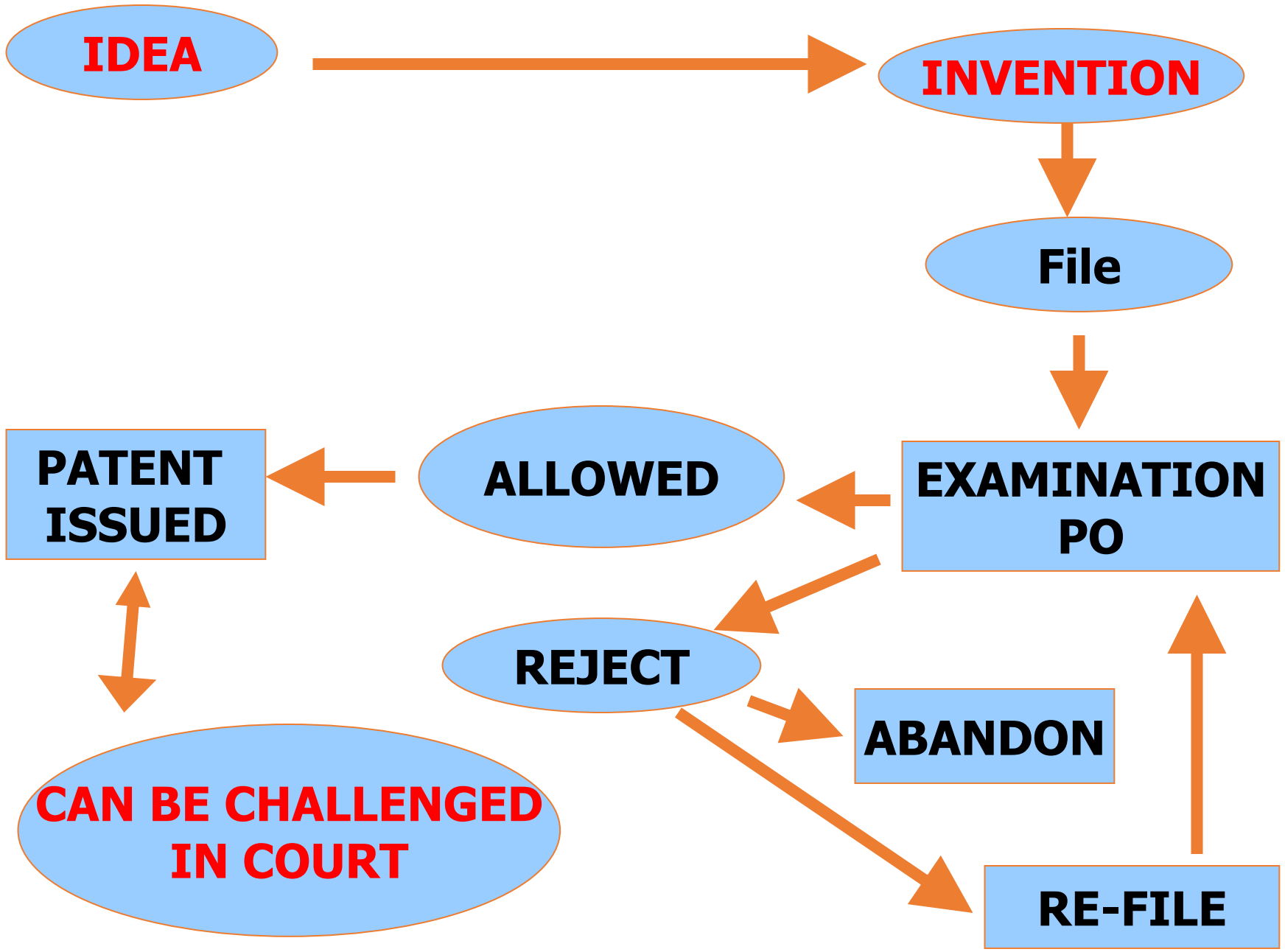
Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, or importing into the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.

Michelle K. Lee

Director of the United States Patent and Trademark Office



Patents – Validity Requirements

Two substantial validity requirements are novelty and inventive step (non obviousness)

- This forms part of the Quid Pro Quo of the patent system
- The state only grants the monopoly if the applicant teaches the public something new

Novelty = no prior publication or use of the exact concept or product

Inventive step = non-obvious variation from what is publicly known

Novelty requirements are mostly similar around the world, but obviousness tests vary

Novelty = Newness

Was the *exact* invention *publicly known* before the application was filed

This may be due to a prior publication in any medium, or a prior use

- To anticipate an invention a single publication or single use must reveal all details of the invention

Assessment is against what was in public @priority date

An earlier filed, but not yet published patent application that discloses all of the information will anticipate the invention

Novelty Requirements

Prior publication may be in any medium, language or location

- Journal paper, conference paper, book, website, etc.

All information must be available in a single source

- Exception is if documents or acts are related such that the person skilled in the art as a single source of that information (eg. book chapters)

Doesn't matter if you have to pay to obtain the article, only that you are free to use the information after receiving it

The information must be clear and unambiguous

Novelty – Public Use

Public use or public sale, prior to filing can destroy novelty

Anticipation depends upon whether *all* details of the invention are made available to the public

- Are public free to inspect and use that knowledge without constraint
- Are their hidden details that can't be determined by inspection

Novelty – Exemptions

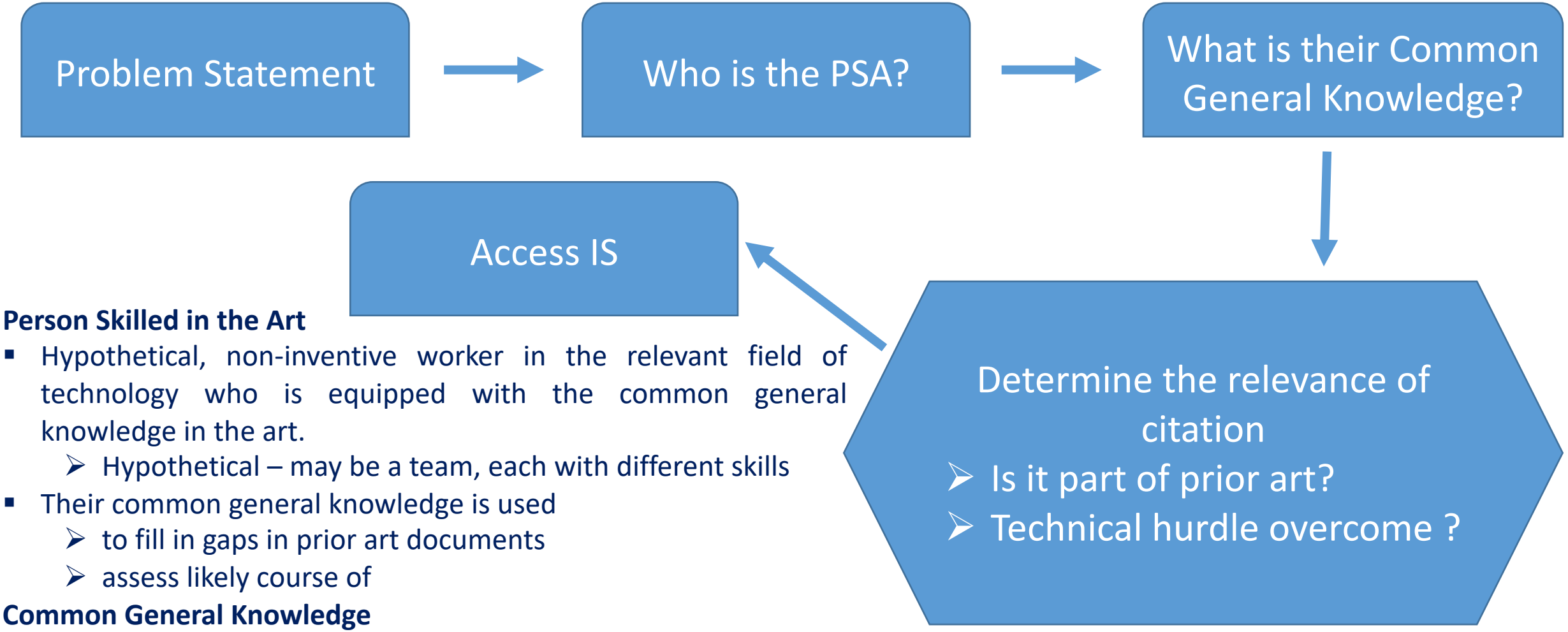
- Publication of an invention at a *recognised* exhibition;
- Publication of the invention in relation to a “learned society”
- Any publication or use of the invention within twelve months before the filing date of the complete application ("grace period")
- Disclosure through unauthorised use
- Reasonable trial and evaluation in public.

Inventive Step in a Claimed Invention

A patent may not be obtained if the differences between the subject matter sought to be patented and the prior art would have been obvious at the time the invention was made to a person of ordinary skill in the art to which the subject matter pertains.

- Novelty test is a strict test, so a further requirement is that it not an obviousness development from what was publicly known
- Inventive Step/Obviousness is a difficult assessment
  - What is the process of invention?
  - How inventive do you have to be?
  - How do you assess it?
- Various tests/approaches have been developed to help the courts and non experts (attorneys/examiners/etc.) make an assessment.

Inventive Step - Assessing



Person Skilled in the Art

- Hypothetical, non-inventive worker in the relevant field of technology who is equipped with the common general knowledge in the art.
  - Hypothetical – may be a team, each with different skills
- Their common general knowledge is used
  - to fill in gaps in prior art documents
  - assess likely course of

Common General Knowledge

- "... forms the background knowledge and experience which is available to all in the trade"
- Must be information which is "generally accepted"

Inventive Step - Assessment

- What would the typical worker in the field do to solve the problem?
- What documents would they consider, and where would it lead them?
- They must be plainly led to the solution based on public information and their background knowledge
- Does the proposed solution overcome some hurdle or provide some advantage
- Was the invention the identification of the real problem?

Combining Documents

- Where novelty is limited to a single document, obviousness allows documents to be combined
- When a document discloses most of the features, the missing features can be added by another document or PSA
- However their must be some reasonable motivation to combine in light of the problem to be solved
- Be wary of hindsight bias (post facto analysis)
- Does the document “teach away” from the inventors solution?

Inventive Step

Teaching, Suggestion, or Motivation

- Whether the prior art provided some motivation or suggestion, expressly or by implication, to combine the prior art teachings to achieve the claimed invention; and
- Whether the claimed invention achieved more than a combination of any or all of the references suggested.

Industrial Application

In certain jurisdictions' patent law, industrial applicability or industrial application is a patentability requirement according to which a patent can only be granted for an invention which is susceptible of industrial application, i.e. for an invention which can be made or used in some kind of industry.

Industrial Application - Principles

- The patent must disclose *"a practical application"* and *"some profitable use"* for the claimed substance, so that the ensuing monopoly "can be expected [to lead to] some … commercial benefit";

- A *"concrete benefit",* namely the invention's *"use … in industrial practice"* must *be "derivable directly from the description",* coupled with common general knowledge;

- A merely *"speculative"* use will not suffice, so *"a vague and speculative indication of possible objectives that might or might not be achievable"* will not do;

- The patent and common general knowledge must enable the skilled person *"to reproduce"* or *"exploit"* the claimed invention without *"undue burden",* or having to carry out *"a research programme";*

Utility

An invention is *"useful"* if it provides some identifiable benefit and is capable of use. The majority of inventions are usually not challenged as lacking utility, but the doctrine prevents the patenting of fantastic or hypothetical devices

- **Specific utility**

  The specific utility contrasts with a general utility that would be applicable to the broad class of the invention.

  - For example, a claim to a polynucleotide whose use is disclosed simply as a *"gene probe"* would not be considered to be specific in the absence of a disclosure of a specific DNA target.
  - Similarly, a general statement of diagnostic utility, such as diagnosing an unspecified disease, would ordinarily be insufficient absent a disclosure of what condition can be diagnosed.

- **Substantial utility**

  Utilities that require or constitute carrying out further research to identify or reasonably confirm a *"real world"* context of use are not substantial utilities.

Utility

An invention has a well-established utility if:

- a person of ordinary skill in the art would immediately appreciate why the invention is useful, and
- the utility is specific, substantial and credible.

Examples of situations that do not define "substantial utility"

- Basic research such as a studying the properties of the claimed product itself or the mechanisms in which the material is involved;
- A method of treating an unspecified disease or condition; A method of assaying for or identifying a material that itself has no *"specific and/or substantial utility"*;
- A method of making a material that itself has no specific, substantial and credible utility;
- A claim to an intermediate product for use in making a final product that has no specific, substantial and credible utility.

So-called "throw away" utilities do not meet the tests for a specific or substantial utility.

Sufficiency / Support

Enabling Disclosure

- At least one embodiment of the invention or at least one method for performing the invention must be described so that it can be reproduced without the need for inventive ingenuity.
  - If a skilled person following the directions given in the specification has to find out something that is new in order to reproduce the invention, the disclosure is insufficient.

- The non-availability of some unspecified variants of a functionally defined component feature of the invention is immaterial to sufficiency so long as there are suitable variants known to the skilled person as common general knowledge which provide the same effect for the invention.

- An insufficient application could not become sufficient because of general developments in the state of the art after the filing date.
  - The relevant date for complying with the requirement for sufficiency is the filing date of the application and not the date of publication of the specification.

Unity of Invention

- In most patent laws, unity of invention is a formal administrative requirement that must be met by a patent application to become a granted patent.
- A patent application can relate only to one invention or a group of closely related inventions.
- The purpose of this requirement is administrative, as well as financial.
- It makes the classification of patent documents easier.

The requirement serves to preclude the option of filing one patent application for several inventions, while paying only one set of fees (filing fee, search fee, examination fee, renewal fees, and so on).

Enablement

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same…

The specification in a patent application must describe the invention in a manner that would enable one with ordinary skill in the art to make and use the invention without an undue amount of experimentation.

The written description requirement and the enablement requirement are separate requirements.

Vas-Cath, Inc. v. Mahurkar, 935 F.2d 1555 (Fed. Cir. 1991)

Written Description

Is an inquiry/analysis of whether the applicant was in possession of the invention he/she seeks to patent.

> "[T]he description must 'clearly allow persons of ordinary skill in the art to recognize that [the inventor] ***invented*** what is claimed."

Ensures that the inventor had **possession**, as of the filing date of the application, of the specific subject matter claimed.

> "The test for sufficiency is whether the disclosure of the application relied upon reasonably coveys to those skilled in the art that the inventor had possession of the ***claimed subject matter*** as of the filing date."

Fed. Cir. 2010, citing Vas Cath, 935 F.2d at 1563

Anticipation

Anticipation occurs when one prior art reference or event discloses all the features of a claim and enables one of ordinary skill in the art to make and use the claimed invention; the claim is then said to lack novelty.

The prior occurrence of a process or composition can anticipate a claim under this doctrine because of elements that simply inhere in the process or composition even if these elements were not recognized at the time of the prior occurrence.

To establish a case of inherent anticipation, the process or composition or element thereof must have existed or occurred to a certainty (i.e., not possibility or probability).

Double Patenting

A judicially created doctrine intended to prevent improper time wise extension of a patent right by prohibiting the issuance of claims in a second patent that are not "patentably distinct" from the claims of a first patent.

The doctrine prohibits claims in a second patent that are merely an obvious variation of the claims of a first patent. If the patent applicant cannot convince the patent examiner that the claims of the second patent are not merely an obvious variation of the earlier claims.

The remedy is to file a *Terminal Disclaimer*.

Computer Related/Implemented Inventions

- ✓Yes it is patentable - if the program has the potential to bring about, when running on a computer, a technical effect which goes beyond the normal interactions between the program and the computer.

- ✓The normal interactions like flow of electrical current are not sufficient to establish the technical effect.

Computer Related/Implemented Inventions

- Highlight technical problem being solved
- Highlight the technical effect or technical advance of a specified program (whether by means of hardware or software)
- Try to avoid look and feel of algorithm, mathematical method, business method as even technical advance cannot save it due to absolute bar
- Avoid certain terms in claims, like program, instructions, calculating, etc.
- Link the invention to one or more end application/use
- Keep method as primary claims
- Clearly state what device/ component performs the method
- Avoid multi-party system claims – client and server, server and database
- Separate claim for each device, such as transmitter and receiver, source and destination device

Indian Guidelines for CRI

- The Office of the **CGPDTM** issued revised Guidelines on Examination of **CRI(s)** on June 30th 2017.
- Proposes to bring much needed clarity and consistency in examination of patent applications for computer related inventions.
- The Patents (Amendment) Act, 2002 also introduced explicit exclusions from patentability under section 3 for Computer Related Inventions (CRIs) as under:

  (k) a mathematical or business method or a computer programme per se or algorithms;

  (l) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions;

  (m) a mere scheme or rule or method of performing mental act or method of playing game;

  (n) a presentation of information;

  (o) topography of integrated circuits;

- Claims

  1) The claims should clearly define the scope of the invention and should take care of unity of invention requirements as defined under section 10(5) of the Patents Act, 1970.
  2) The claim(s) of a complete specification should be clear and succinct and should be fairly based on the matter disclosed in the specification.
  3) The claims in the field of Computer related inventions need to be construed to ascertain the substance of the claim without wholly relying on the forms and types of the claims.

US005838906A

United States Patent [19]

Doyle et al.

[11] Patent Number: 5,838,906

[45] Date of Patent: Nov. 17, 1998

[54] **DISTRIBUTED HYPERMEDIA METHOD FOR AUTOMATICALLY INVOKING EXTERNAL APPLICATION PROVIDING INTERACTION AND DISPLAY OF EMBEDDED OBJECTS WITHIN A HYPERMEDIA DOCUMENT**

[75] Inventors: **Michael D. Doyle**, Alameda; **David C. Martin**, San Jose; **Cheong S. Ang**, Pacifica, all of Calif.

[73] Assignee: **The Regents of the University of California**, Oakland, Calif.

[21] Appl. No.: **324,443**

[22] Filed: **Oct. 17, 1994**

[51] **Int. Cl.**[6] **C06F 9/44**; C06F 15/16; C06F 17/30

[52] **U.S. Cl.** **395/200.32**; 395/200.28; 395/680; 395/685; 345/326; 345/346; 707/501; 707/513; 707/515; 707/516

[58] **Field of Search** 395/157, 200.03, 395/161, 118, 144, 145, 146, 147, 148, 683, 777, 778, 762, 326, 333, 334, 335, 676, 682, 685, 684, 200.32, 200.33, 200.47–200.49; 707/501, 513, 515, 516; 345/326, 343, 346

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Primary Examiner—Dinh C. Dung

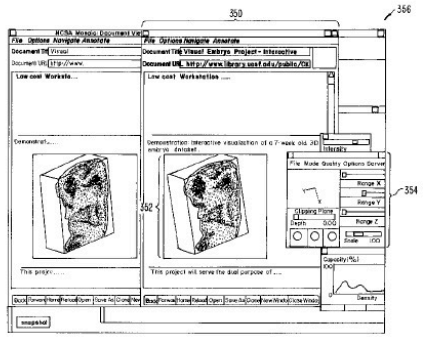
Attorney, Agent, or Firm—Townsend and Townsend and Crew LLP

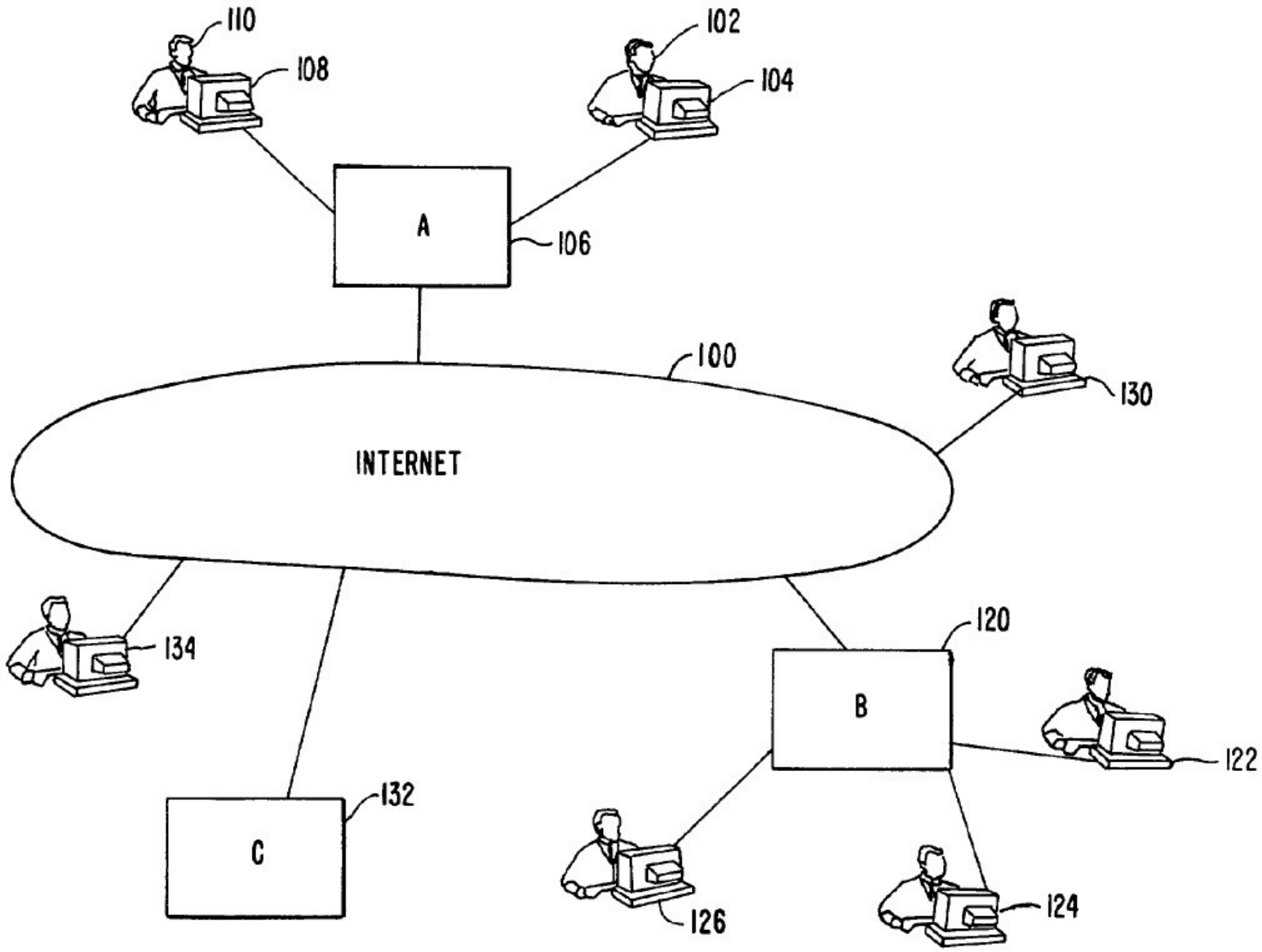
[57] **ABSTRACT**

A system allowing a user of a browser program on a computer connected to an open distributed hypermedia system to access and execute an embedded program object. The program object is embedded into a hypermedia document much like data objects. The user may select the program object from the screen. Once selected the program object executes on the user's (client) computer or may execute on a remote server or additional remote computers in a distributed processing arrangement. After launching the program object, the user is able to interact with the object as the invention provides for ongoing interprocess communication between the application object (program) and the browser program. One application of the embedded program object allows a user to view large and complex multi-dimensional objects from within the browser's window. The user can manipulate a control panel to change the viewpoint used to view the image. The invention allows a program to execute on a remote server or other computers to calculate the viewing transformations and send frame data to the client computer thus providing the user of the client computer with interactive features and allowing the user to have access to greater computing power than may be available at the user's client computer.

10 Claims, 9 Drawing Sheets

Microfiche Appendix Included
(4 Microfiche, 375 Pages)





US00D670286S

(12) **United States Design Patent**
Akana et al.

(10) **Patent No.: US D670,286 S**
(45) **Date of Patent: ** Nov. 6, 2012**

(54) **PORTABLE DISPLAY DEVICE**

(75) Inventors: **Jody Akana**, San Francisco, CA (US); **Bartley K. Andre**, Menlo Park, CA (US); **Daniel J. Coster**, San Francisco, CA (US); **Daniele De Iuliis**, San Francisco, CA (US); **Evans Hankey**, San Francisco, CA (US); **Richard P. Howarth**, San Francisco, CA (US); **Jonathan P. Ive**, San Francisco, CA (US); **Steve Jobs**, Palo Alto, CA (US); **Duncan Robert Kerr**, San Francisco, CA (US); **Shin Nishibori**, Portola Valley, CA (US); **Matthew Dean Rohrbach**, San Francisco, CA (US); **Peter Russell-Clarke**, San Francisco, CA (US); **Christopher J. Stringer**, Woodside, CA (US); **Eugene Antony Whang**, San Francisco, CA (US); **Rico Zorkendorfer**, San Francisco, CA (US)

(73) Assignee: **Apple Inc.**, Cupertino, CA (US)

(**) Term: **14 Years**
(21) Appl. No.: **29/379,722**
(22) Filed: **Nov. 23, 2010**

Related U.S. Application Data

(63) Continuation of application No. 29/354,599, filed on Jan. 26, 2010, and a continuation of application No. 29/353,307, filed on Jan. 6, 2010, now Pat. No. Des. 627,777.

(51) **LOC (9) Cl.** **14-02**
(52) **U.S. Cl.** **D14/341**
(58) **Field of Classification Search** ..... D14/341–347, D14/137, 138, 138.1, 138 A, 138 AA, 138 R, D14/138 AB, 138 AC, 138 AD, 138 C, 138 G, D14/496, 203.1, 203.3, 203.4, 203.5, 203.7, D14/426, 427, 432, 429, 129, 130, 420, 439–441, D14/448, 125, 147, 156, 218, 247–248, 250, D14/389, 388, 315–318; D10/65, 104; D18/6–7; D21/324, 329, 330; D19/26, 59, 60; 455/556.1, 455/556.2, 566, 575.1, 90.3; 379/433.04, 379/433.01, 433.06, 916; 345/169, 173, 345/901, 905; 361/679.26, 679.27, 679.3, 679.55, 679.56
See application file for complete search history.

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Primary Examiner — Barbara Fox
(74) *Attorney, Agent, or Firm* — Sterne, Kessler, Goldstein & Fox PLLC

(57) **CLAIM**

The ornamental design for a portable display device, as shown and described.

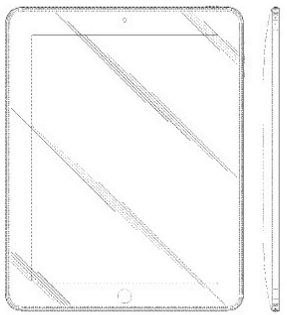
DESCRIPTION

FIG. **1** is a bottom front perspective view of a portable display device showing our new design;
FIG. **2** is a bottom rear perspective view thereof;
FIG. **3** is a front view thereof;
FIG. **4** is a rear view thereof;
FIG. **5** is a top plan view thereof;
FIG. **6** is a left side view thereof;
FIG. **7** is a right side view thereof; and,
FIG. **8** is a bottom plan view thereof.

The shade lines in the Figures show contour and not surface ornamentation.

The broken lines in the Figures show portions of the portable display device which form no part of the claimed design.

1 Claim, 5 Drawing Sheets



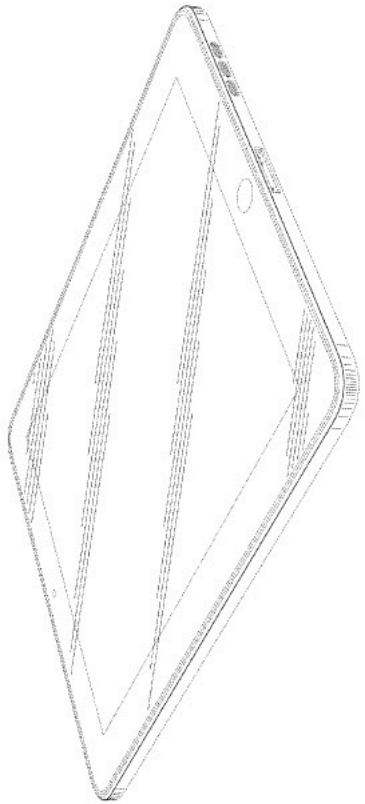


FIG. 1

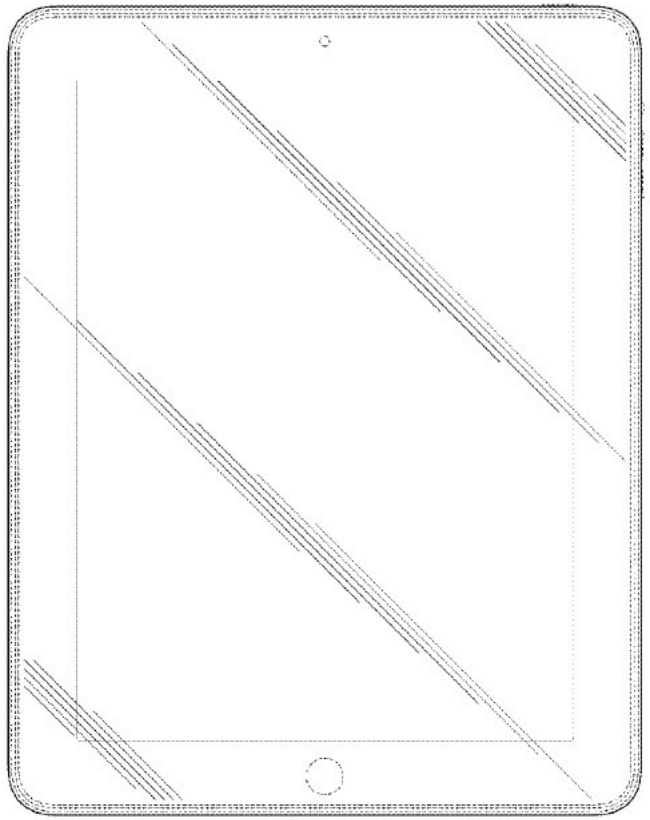


FIG. 3

FIG. 5

FIG. 6

FIG. 7

FIG. 8

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