Lecture 8
Some More Things About Patents

E5104 – Economics of Innovation

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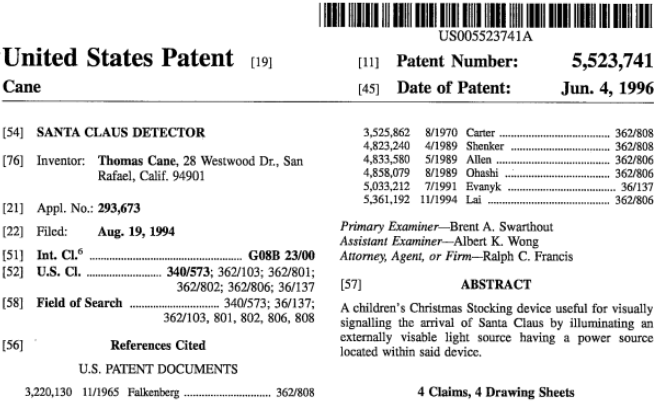
Overview



US005523741A

United States Patent [19]
Cane

[11] **Patent Number: 5,523,741**
[45] **Date of Patent: Jun. 4, 1996**

[54] **SANTA CLAUS DETECTOR**

[76] Inventor: **Thomas Cane**, 28 Westwood Dr., San Rafael, Calif. 94901

[21] Appl. No.: **293,673**

[22] Filed: **Aug. 19, 1994**

[51] **Int. Cl.**[6] **G08B 23/00**

[52] **U.S. Cl.** **340/573**; 362/103; 362/801; 362/802; 362/806; 36/137

[58] **Field of Search** 340/573; 36/137; 362/103, 801, 802, 806, 808

[56] **References Cited**

U.S. PATENT DOCUMENTS

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Primary Examiner—Brent A. Swarthout
Assistant Examiner—Albert K. Wong
Attorney, Agent, or Firm—Ralph C. Francis

[57] **ABSTRACT**

A children's Christmas Stocking device useful for visually signalling the arrival of Santa Claus by illuminating an externally visable light source having a power source located within said device.

4 Claims, 4 Drawing Sheets

- Brief intro into the economics of patents
- What is a patent?
- How to read a patent

The Economics of Patents

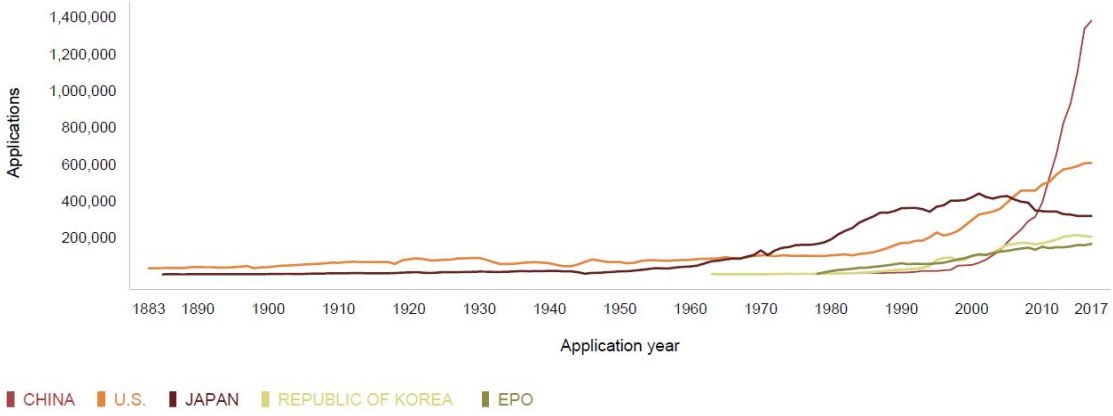
- Public good characteristics of knowledge:
  - nonrival
  - nonexcludable
- Inefficiently low *private* incentive to invest in innovation
- Solution: temporary rights to exclude in form of patents
- But *social* inefficiency because patents make non-rival good excludable
- Innovator acts like a monopolist
- Static loss vs dynamic gain

What is a Patent? What is it Not?

- A patent is:
  - Codified form of knowledge
  - Publicly accessible and searchable information
  - Right to deny third parties use of invention ⇒ **negative right** – has value only when can be potentially used to effectively exclude third parties (value ex ante largely unknown)
  - Territorial right for a predetermined limited period of time
  - Consists of claims
- A patent is **not**:
  - 1:1 measure of innovation
- Note: Patent system extremely complex

Worldwide Growth in Patent Filings

China's Spectacular Patent Explosion



What is a Patent? What is it Not?

- Main criteria for patentability of an invention:

- **Novelty**: invention must not yet be in public domain anywhere in the world before the priority date of the corresponding patent.

- **Non-obviousness**: invention must not be an obvious modification of what is already known, meaning that the invention must be neither re-producible based solely on existing patented claims nor ex-ante an obvious solution to the problem to someone skilled in the art.

- **Capability of being used in any kind of industry**: the patented invention must contain the potential of commercial value through an industrial application.

What is a Patent? What is it Not?

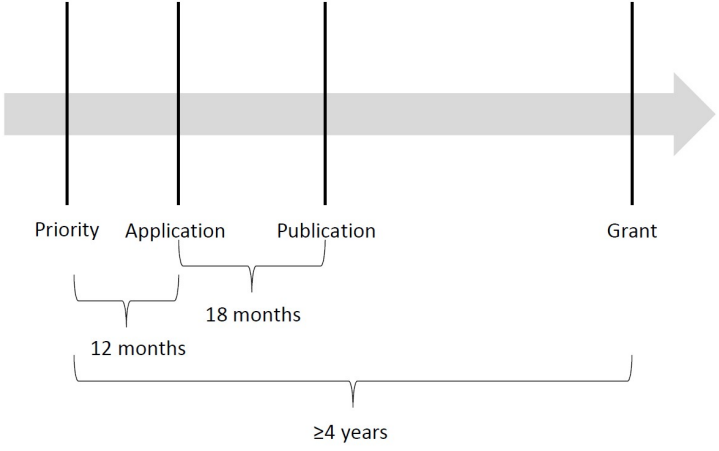
- Invention has to represent **patentable subject matter** (defined differently by different patent offices – which is TRIPS conform)
  - A number of new concepts and methods are excluded from patent protection by EPO: scientific or mathematical discoveries, theories or methods, literary, dramatic, musical or artistic works, schemes, rules or methods for performing a mental act, playing a game or doing business, and methods of medical treatment.
  - Subject matter more broadly defined at the USPTO (includes software and business methods)

Some Basic Concepts

- No ‘international’ patents
- National patent – patent only valid in jurisdiction where granted
- Regional patent systems, for example European Patent Convention (EPC) or African Regional Intellectual Property Organization (ARIPO)
- Patent Cooperation Treaty – PCT system (WIPO)
- Substantial institutional differences across patent offices (has impact on patent characteristics – e.g., (in)famous ‘Sashimi’ patents at JPO – and patent ‘quality’)

How to Read a Patent - Important Concepts

- The different dates associated with a patent
- Timeline



How to Read a Patent - Important Concepts

- Inventor vs. applicant/assignee


US007434177B1

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

(10) **Patent No.: US 7,434,177 B1**
(45) **Date of Patent: Oct. 7, 2008**

(54) **USER INTERFACE FOR PROVIDING CONSOLIDATION AND ACCESS**

(75) Inventors: **Bas Ording**, Sunnyvale, CA (US); **Steven P. Jobs**, Palo Alto, CA (US); **Donald J. Lindsay**, Mountain View, 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 1198 days.

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(Continued)

How to Read a Patent - Important Concepts

- Patent Family / Equivalent Set

User interface for providing consolidation and access

Page bookmark	US7434177 (B1) - User interface for providing consolidation and access
Inventor(s):	ORDING BAS [US]; JOBS STEVEN P [US]; LINDSAY DONALD J [US] +
Applicant(s):	APPLE INC [US] +
Classification:	- international: ***G06F3/00; G06F3/033; G06F3/048; G06F3/14; G09G5/08***
	- cooperative: G06F3/04842; Y10S715/977
Application number:	US 19990467074 19991220
Priority number(s):	US19990467074 19991220
Also published as:	WO0146790 (A2) WO0146790 (A3) WO0146790 (A9) US2012023434 (A1) → US8640045 (B2) US2012023427 (A1) → US8640044 (B2) US2007288860 (A1) US7526738 (B2) US2009183120 (A1) US8032843 (B2) JP2011048835 (A) JP4933655 (B2) JP2003536125 (A) JP4620922 (B2) EP2146269 (A1) EP1250641 (A2) CN1425151 (A) CN1242318 (C) → AU2252401 (A) AU778653 (B2)

How to Read a Patent - Important Concepts

What is claimed is:

1. A computer system comprising:

a display;

a cursor for pointing to a position within said display;

a bar rendered on said display and having a plurality of tiles associated therewith; and

a processor for varying a size of at least one of said plurality of tiles on said display when said cursor is proximate said bar on said display and for repositioning others of said plurality of tiles along said bar to accommodate the varied size of said one tile.

2. The computer system of claim **1**, wherein each of said plurality of tiles represents an object with which a user of said computer system can interact.

3. The computer system of claim **2**, wherein said objects include at least one of: applications, documents, windows and uniform resource locators.

4. The computer system of claim **1**, wherein said at least one of a plurality of tiles includes a tile to which said cursor is closest and a plurality of tiles adjacent to said tile.

5. The computer system of claim **1**, wherein said processor repositions said others of said plurality of tiles in accordance with a predefined relationship between an effect width W, a default height h of said at least one of said plurality of tiles and a selected maximum height H of said at least one of said plurality of tiles.

6. The computer system of claim **5**, wherein said predefined relationship includes a function S defined as:

- Independent patent claims are the metes and bounds of the invention protected by a patent
- Patents typically comprise more than one independent claim
- Claims are of different classes and types
  - process or method claim
  - product or apparatus claim
  - product-by-process claim

How Important are Patents Empirically: Survey Evidence

- Share of innovations not developed if patent protection had not been available (Mansfield, 1986):
  - Pharmaceuticals and chemicals, patent protection essential for 30%
  - Petroleum, machinery, and fabricated metals, patent protection essential for 10-20%
- Very little patenting – 4% of innovative companies in UK patent, but large differences across industries (Hall et al., 2013)
- Dissonance: 25% of Finnish companies companies say patents most important mechanism, 15% secrecy – but 62% say rely on secrecy, 16% on patents (Leiponen and Byma, 2009).