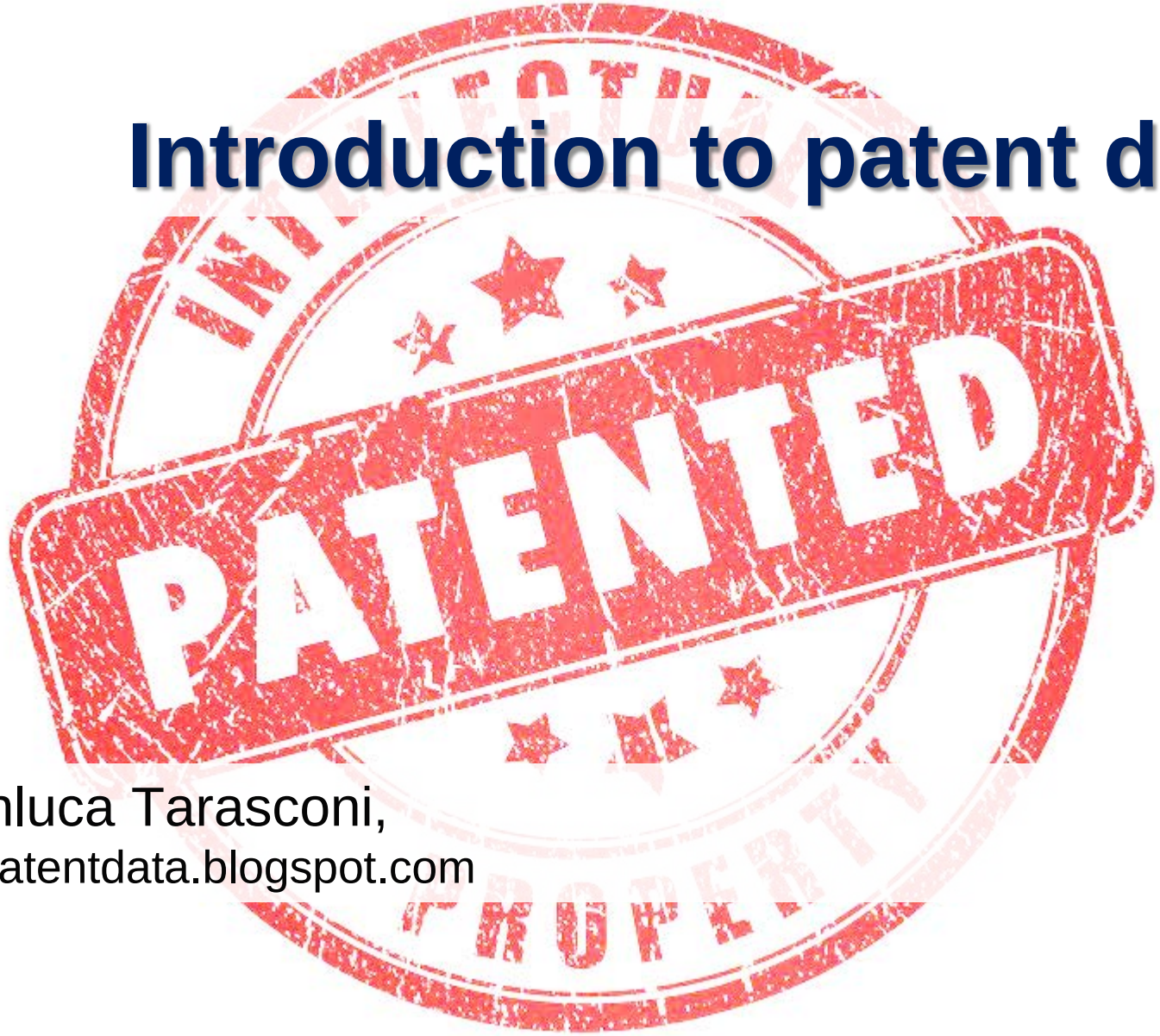
Introduction to patent data



Gianluca Tarasconi,
rawpatentdata.blogspot.com

IP introduction

Querying patent databases is a process where user can meet pitfalls.

Datasets answer exactly what they are asked.

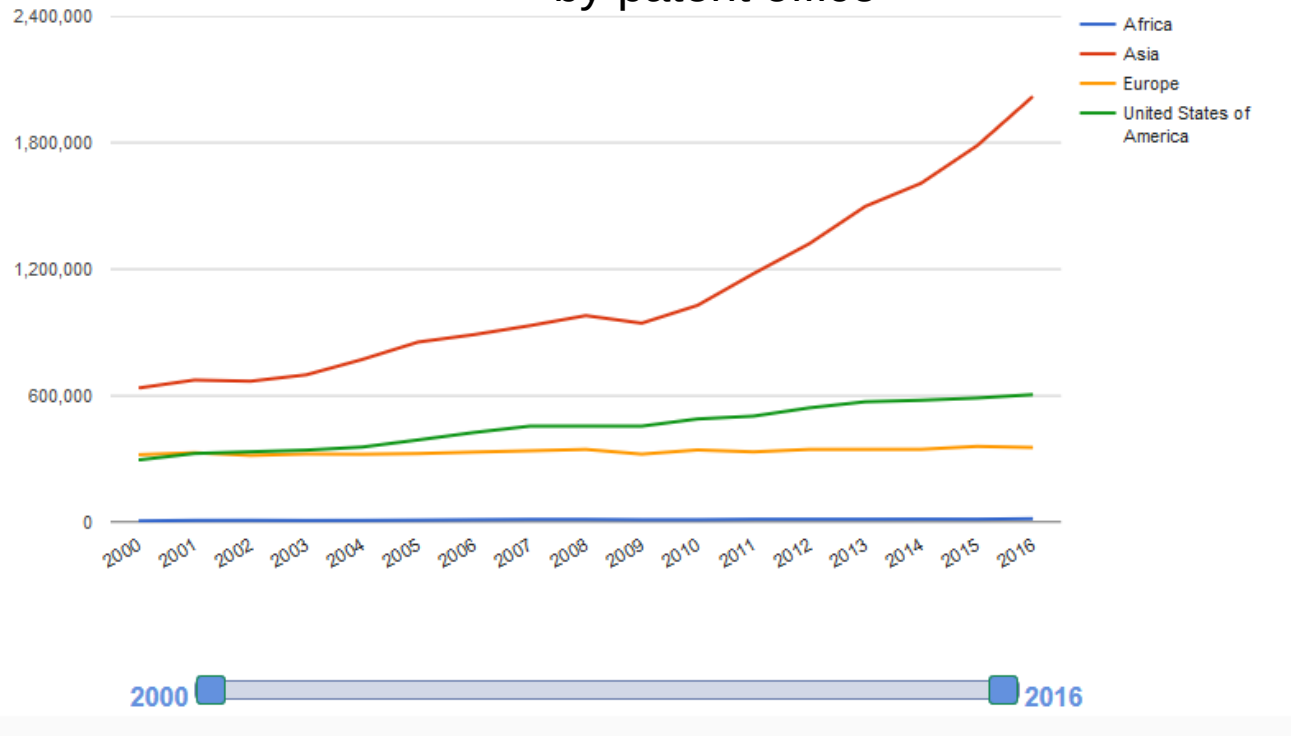
In order to ask the correct question some background is needed.

IP overview

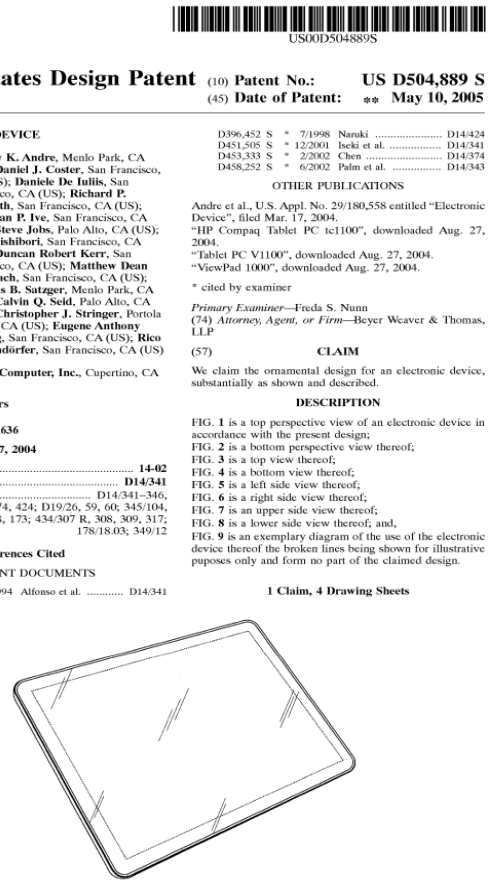
Legal right	What for?	How?
Patents	New inventions	Application and examination
Copyright	Original creative or artistic forms	Exists automatically*
Trade marks	Distinctive identification of products or services	Use and/or registration
Registered designs	External appearance	Registration*
Trade secrets	Valuable information not known to the public	Reasonable efforts to keep secret

Worldwide patents filings

https://www3.wipo.int/ipstats/ipslinechart
by patent office



Patent Information (I):
Ipad Patent Document front page (USD503889)



US00D504889S

(12) **United States Design Patent** (10) **Patent No.:** **US D504,889 S**
Andre et al. (45) **Date of Patent:** ** **May 10, 2005**

(54) **ELECTRONIC DEVICE**

(75) Inventors: **Bartley K. Andre**, Menlo Park, CA (US); **Daniel J. Coster**, San Francisco, CA (US); **Daniele De Iuliis**, San Francisco, CA (US); **Richard P. Howarth**, San Francisco, CA (US); **Jonathan P. Ive**, San Francisco, CA (US); **Steve Jobs**, Palo Alto, CA (US); **Shin Nishibori**, San Francisco, CA (US); **Duncan Robert Kerr**, San Francisco, CA (US); **Matthew Dean Rohrbach**, San Francisco, CA (US); **Douglas B. Satzger**, Menlo Park, CA (US); **Calvin Q. Seid**, Palo Alto, CA (US); **Christopher J. Stringer**, Portola Valley, CA (US); **Eugene Anthony Whang**, San Francisco, CA (US); **Rico Zörkendörfer**, San Francisco, CA (US)

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

(**) Term: **14 Years**

(21) Appl. No.: **29/201,636**

(22) Filed: **Mar. 17, 2004**

(51) **LOC (7) Cl.** **14-02**
(52) **U.S. Cl.** **D14/341**
(58) **Field of Search** ..... D14/341–346, D14/374, 424; D19/26, 59, 60; 345/104, 156, 168, 173; 434/307 R, 308, 309, 317; 178/18.03; 349/12

(56) **References Cited**

U.S. PATENT DOCUMENTS

D345,346 S * 3/1994 Alfonso et al. D14/341
D396,452 S * 7/1998 Naruki D14/424
D451,505 S * 12/2001 Iseki et al. D14/341
D453,333 S * 2/2002 Chen D14/374
D458,252 S * 6/2002 Palm et al. D14/343

OTHER PUBLICATIONS

Andre et al., U.S. Appl. No. 29/180,558 entitled "Electronic Device", filed Mar. 17, 2004.
"HP Compaq Tablet PC tc1100", downloaded Aug. 27, 2004.
"Tablet PC V1100", downloaded Aug. 27, 2004.
"ViewPad 1000", downloaded Aug. 27, 2004.

* cited by examiner

Primary Examiner—Freda S. Nunn
(74) *Attorney, Agent, or Firm*—Beyer Weaver & Thomas, LLP

(57) **CLAIM**

We claim the ornamental design for an electronic device, substantially as shown and described.

DESCRIPTION

FIG. **1** is a top perspective view of an electronic device in accordance with the present design;
FIG. **2** is a bottom perspective view thereof;
FIG. **3** is a top view thereof;
FIG. **4** is a bottom view thereof;
FIG. **5** is a left side view thereof;
FIG. **6** is a right side view thereof;
FIG. **7** is an upper side view thereof;
FIG. **8** is a lower side view thereof; and,
FIG. **9** is an exemplary diagram of the use of the electronic device thereof the broken lines being shown for illustrative puposes only and form no part of the claimed design.

1 Claim, 4 Drawing Sheets

The patent document is the data source;

For statistical purposes the data must, however, be cleaned, normalized and reclassified;

You need to be able to query (with queries or user interfaces);

The latter is the reason why resources (databases, reports, etc.) where data has been preprocessed are used.

US00D504889S

(12) United States Design Patent

Andre et al.

(10) Patent No.: US D504,889 S
(45) Date of Patent: ** May 10, 2005

(54) **ELECTRONIC DEVICE**

(75) Inventors: **Bartley K. Andre**, Menlo Park, CA (US); **Daniel J. Coster**, San Francisco, CA (US); **Daniele De Iuliis**, San Francisco, CA (US); **Richard P. Howarth**, San Francisco, CA (US); **Jonathan P. Ive**, San Francisco, CA (US); **Steve Jobs**, Palo Alto, CA (US); **Shin Nishibori**, San Francisco, CA (US); **Duncan Robert Kerr**, San Francisco, CA (US); **Matthew Dean Rohrbach**, San Francisco, CA (US); **Douglas B. Satzger**, Menlo Park, CA (US); **Calvin Q. Seid**, Palo Alto, CA (US); **Christopher J. Stringer**, Portola Valley, CA (US); **Eugene Anthony Whang**, San Francisco, CA (US); **Rico Zörkendörfer**, San Francisco, CA (US)

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(58) **Field of Search** ..... D14/341–346, D14/374, 424; D19/26, 59, 60; 345/104, 156, 168, 173; 434/307 R, 308, 309, 317; 178/18.03; 349/12

(56) **References Cited**

U.S. PATENT DOCUMENTS

D345,346 S * 3/1994 Alfonso et al. D14/341
D396,452 S * 7/1998 Naruki D14/424
D451,505 S * 12/2001 Iseki et al. D14/341
D453,333 S * 2/2002 Chen D14/374
D458,252 S * 6/2002 Palm et al. D14/343

OTHER PUBLICATIONS

Andre et al., U.S. Appl. No. 29/180,558 entitled "Electronic Device", filed Mar. 17, 2004.
"HP Compaq Tablet PC tc1100", downloaded Aug. 27, 2004.
"Tablet PC V1100", downloaded Aug. 27, 2004.
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* cited by examiner

Primary Examiner—Freda S. Nunn
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FIG. **6** is a right side view thereof;
FIG. **7** is an upper side view thereof;
FIG. **8** is a lower side view thereof; and,
FIG. **9** is an exemplary diagram of the use of the electronic device thereof the broken lines being shown for illustrative puposes only and form no part of the claimed design.

1 Claim, 4 Drawing Sheets

Patent front page

CAVEAT!

Is 1 patent = 1 invention?

NO

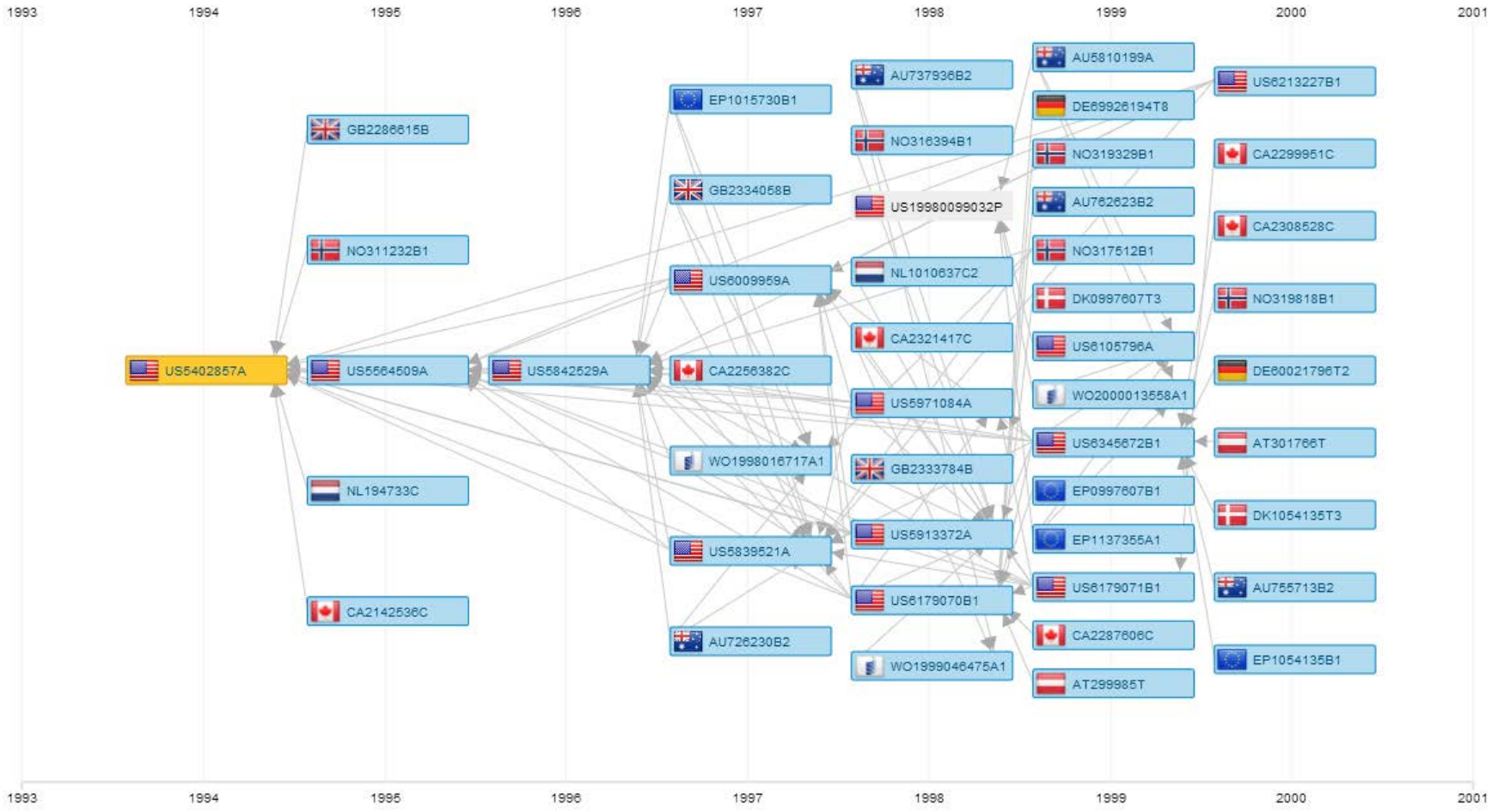
Due to applicant strategy, institutional bias etc
1 patent family = 1 invention

* PATENT FAMILY DEFINITION

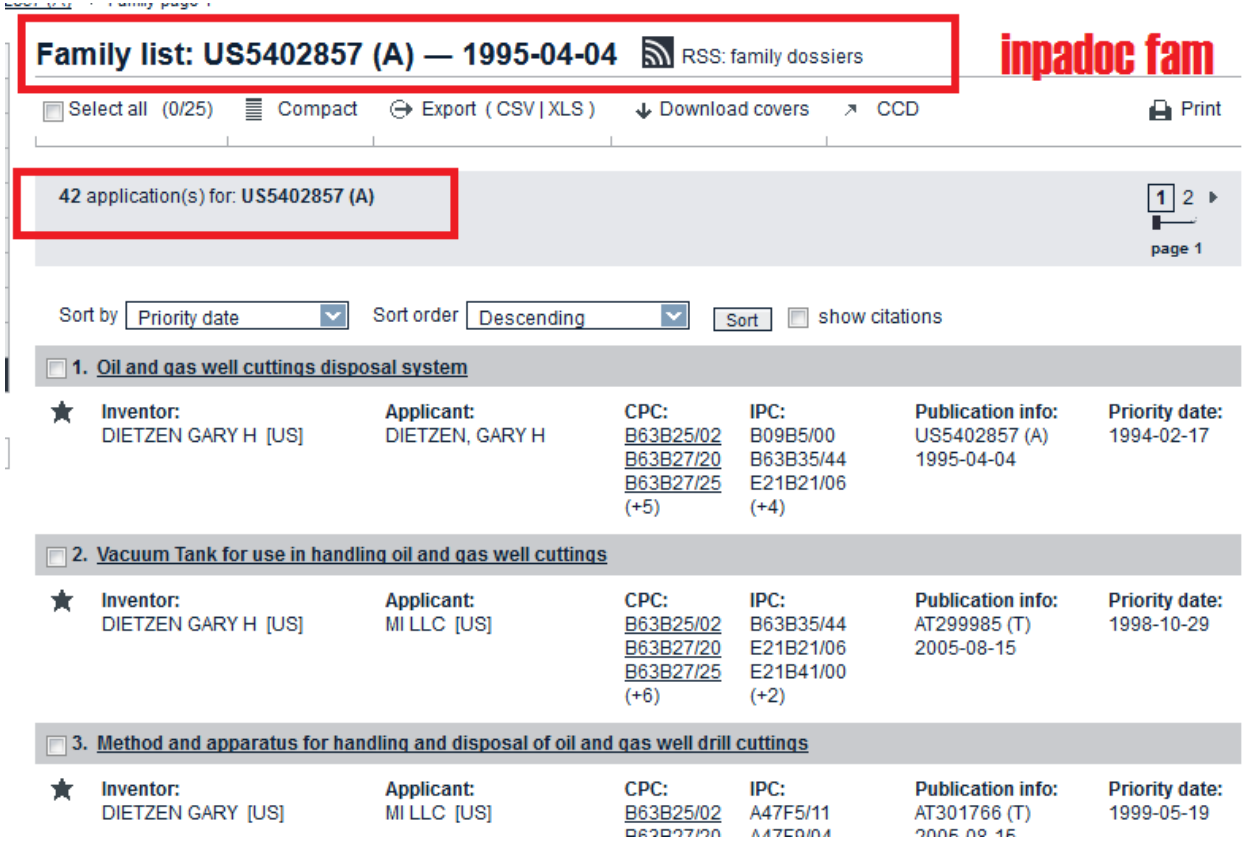
A patent family is "a set of patents taken in various countries to protect a single invention (when a first application in a country – the priority – is then extended to other offices).“

In other words, a patent family is "the same invention disclosed by a common inventor(s) and patented in more than one country.”

PATENT FAMILY



PATENT FAMILY – from EPO Espacenet



Family list: US5402857 (A) — 1995-04-04 RSS: family dossiers

inpadoc fam

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42 application(s) for: **US5402857 (A)**

1 2 ▸

page 1

Sort by: Priority date | Sort order: Descending | Sort | show citations

1. Oil and gas well cuttings disposal system

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
DIETZEN GARY H [US]	DIETZEN, GARY H	B63B25/02 B63B27/20 B63B27/25 (+5)	B09B5/00 B63B35/44 E21B21/06 (+4)	US5402857 (A) 1995-04-04	1994-02-17

2. Vacuum Tank for use in handling oil and gas well cuttings

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
DIETZEN GARY H [US]	MI LLC [US]	B63B25/02 B63B27/20 B63B27/25 (+6)	B63B35/44 E21B21/06 E21B41/00 (+2)	AT299985 (T) 2005-08-15	1998-10-29

3. Method and apparatus for handling and disposal of oil and gas well drill cuttings

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
DIETZEN GARY [US]	MI LLC [US]	B63B25/02	A47F5/11	AT301766 (T)	1999-05-19

CAVEAT 2!

Is 1 document number= 1 patent?

NO

Also application kind defines type of application.

Example:

APPLN_ID	APPLN_AUTH	APPLN_NR	APPLN_KIND	APPLN_FILING_DATE	APPLN_FILING_YEAR
51721359	'US'	'54598004'	'A'	'2004-02-13'	2004
905562558	'US'	'54598004'	'D'	'2004-02-18'	2004
905563400	'US'	'54598004'	'P'	'2004-02-20'	2004
931684263	'US'	'54598004'	'D2'	'9999-12-31'	9999

Most widespread kind of application

- A patent
- U utility model
- W PCT application (in the international phase)
- T "translations" of granted PCT or EP
- P provisional application (US only)
- F design patent
- V plant patent
- D2, D3 artificial applications

Database on line: ESPACENET (I)

http://worldwide.espacenet.com/advancedSearch

Advantages:

Navigation Interface;

Data Completeness (EPO / EU mainly);

90+ patent offices;

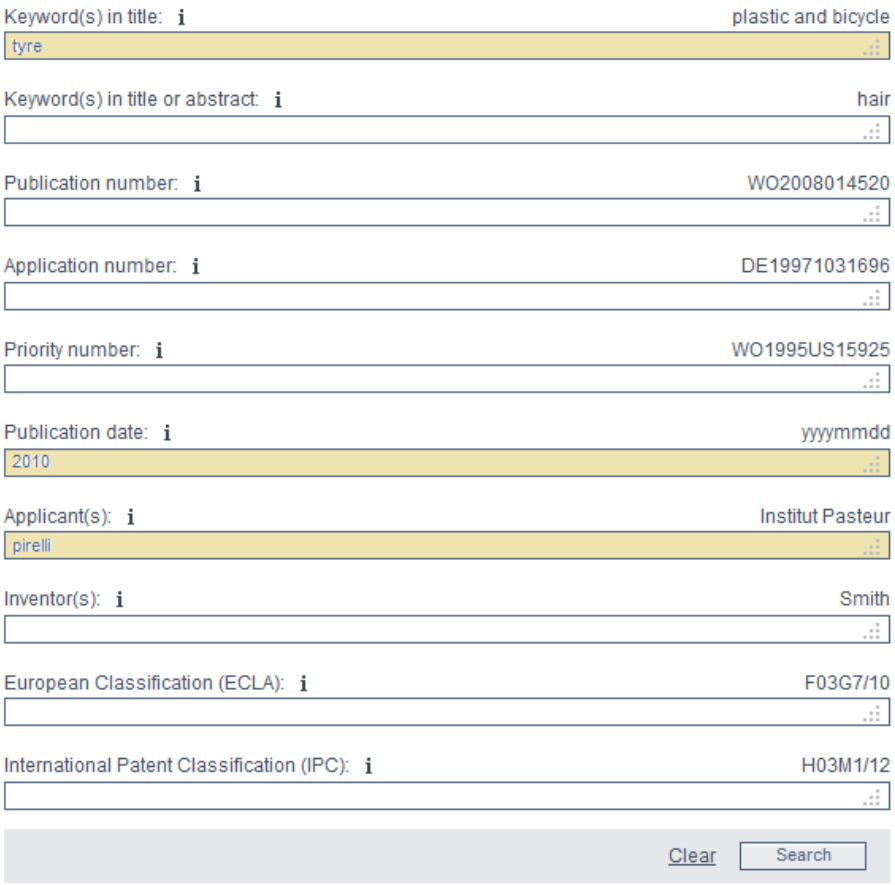
Free access.

Disadvantages:

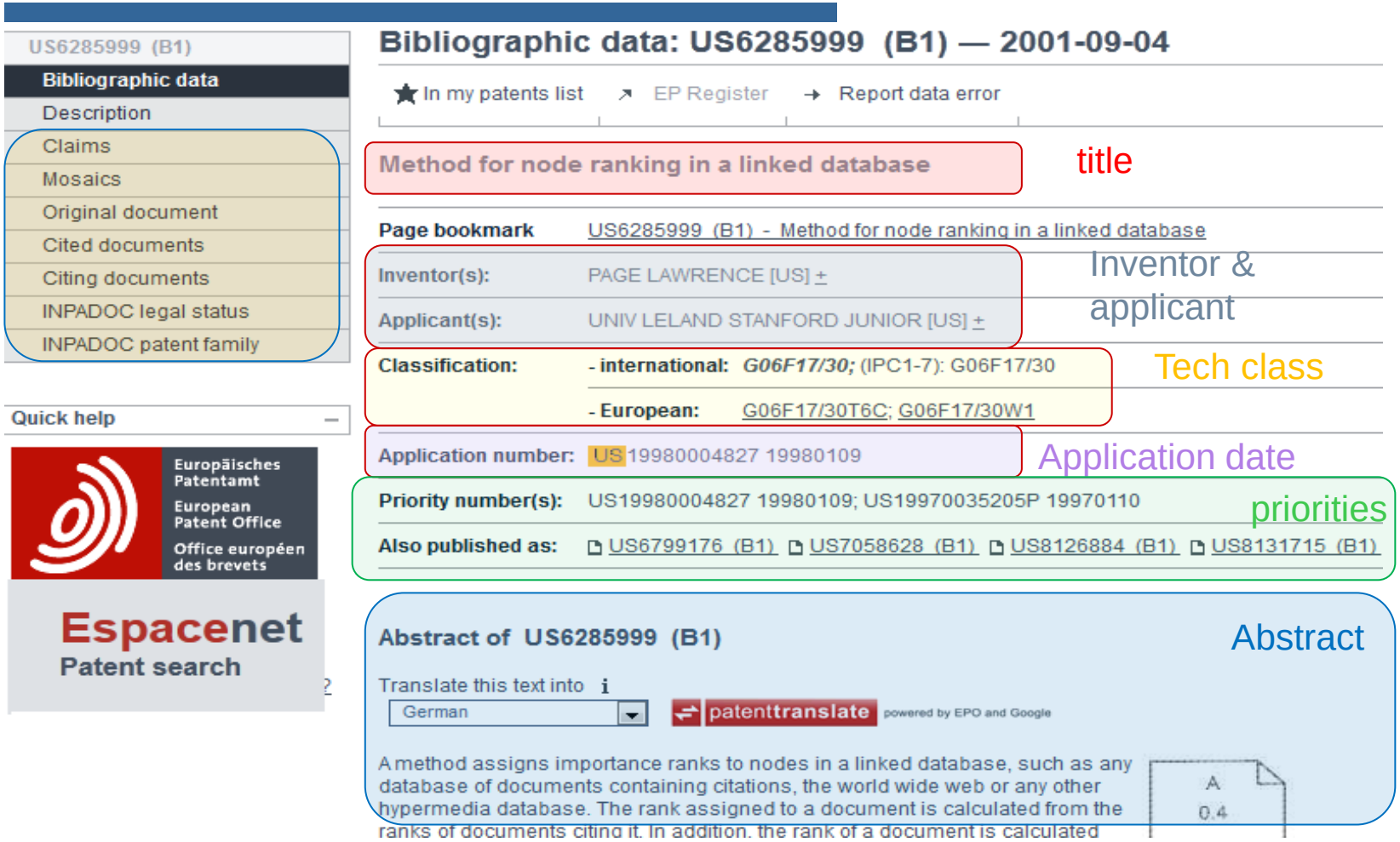
Non-standardized and non-reclassified data;

No geographic data;

Data cannot be grouped in summaries.



Patent information(II):
google pagerank on espacenet



Patent information(III)

2 Existing patents search

- ‘registry'

Filing date, priority date, inventor, assignee, title, abstract

- **Tecnical**

IPC, CPC Class, citations, equivalents, family members, n of claims

- **Legal**

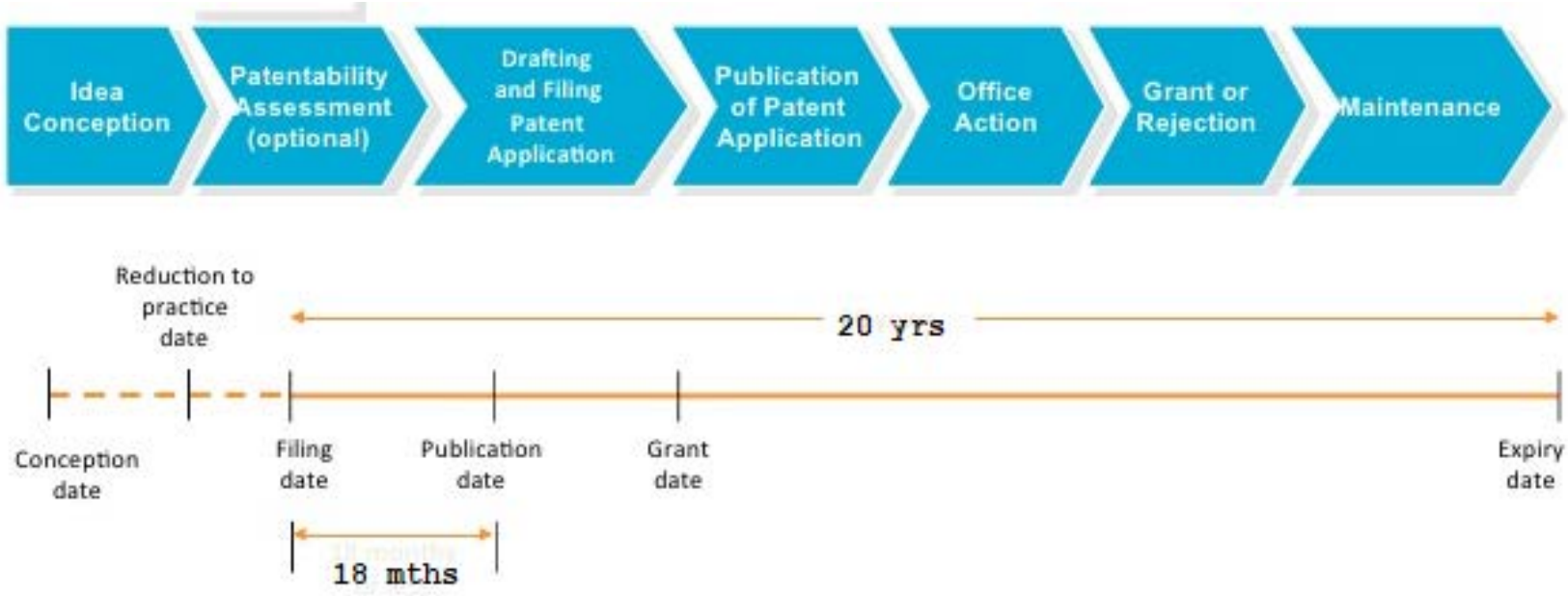
Renewals, change of ownership, n of estensions, oppositions, licensing

1 Patent Value

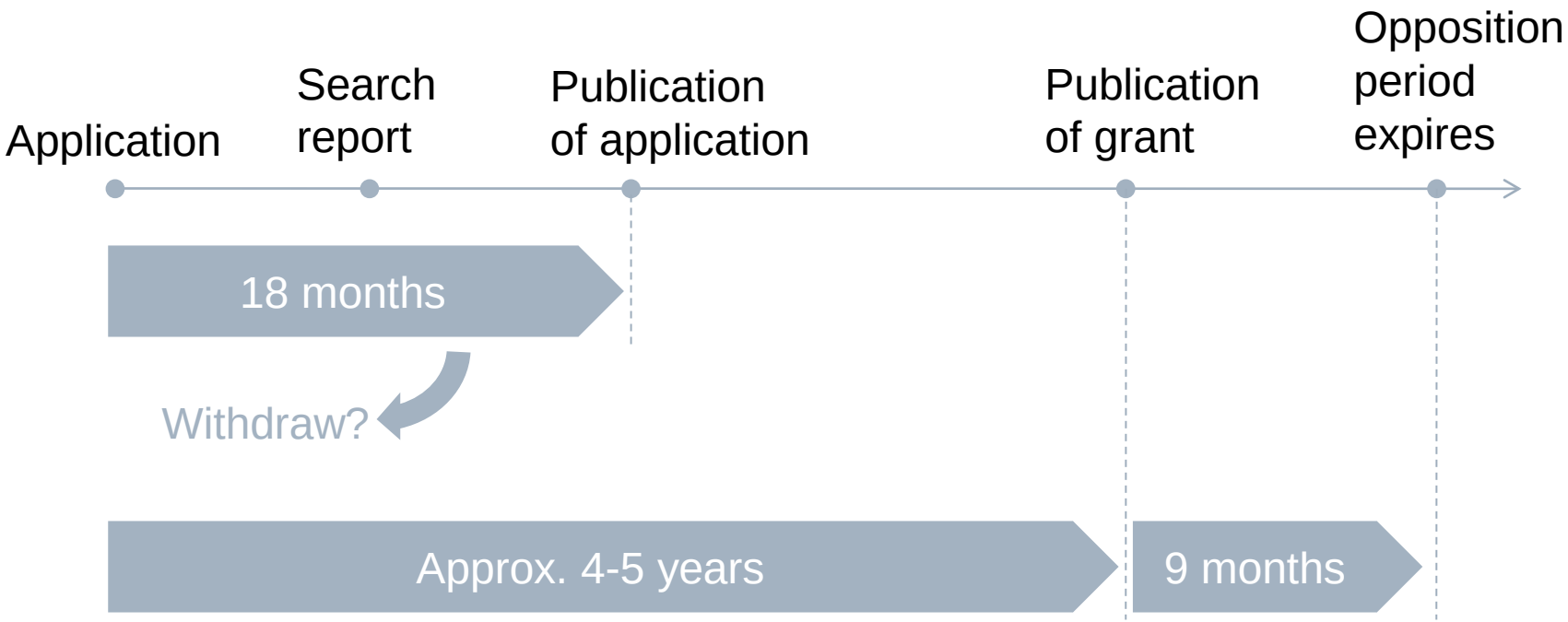
3 Who patents what

Patent data life cicle

Patent data are born at first publication, but change within time…



Patent procedure @ EPO



* Patent data life cicle: milestones

Application date: when the patent is filed @ a given patent office (1 only)

Publication date: when the patent is made publicy available (several publication phases)

Grant date: when patent is fully granted

Renewals, oppositions, changes of owneship …

Expiry date: when the patent is no more in force [end of grant period / lapse of payments / opposition success]

Priority date: when the first patent of the family has been filed (aka best proxy of DoB of invention)

Publications life cicle - A

EP-A documents:

European patent applications, published 18 months after filing with the EPO or 18 months after the priority date

A1	European patent application published with European search report
A2	European patent application published without European search report (search report not available at publication date)
A3	Separate publication of European search report
A4	Supplementary search report
A8	Corrected title page of A document, ie. A1 or A2 document
A9	Complete reprint of A document, ie. A1, A2 or A3 document.

Publications life cicle

EP-B documents:

European patent specifications

B1	European patent specification (granted patent)
B2	New European patent specification (amended specification after opposition procedure)
B3	European patent specification (after limitation procedure)
B8	Corrected title page of B document (i.e. B1 or B2 document)
B9	Complete reprint of B document (i.e. B1 or B2 document)

Note on data collection

Patent data are stored in order to facilitate EXAMINERS work, thus only data relevant to examination process (tech classes, citations, priorities…) are standardized

Data not involved (applicant, inventor …) are not standardized and can even be partial.

Information drill down: Inventors

Inventors data are collected during application process.

NAME, ADDRESS (optional), COUNTRY

PERSON_ID, PERSON_NAME, PERSON_ADDRESS,
PERSON_CTRY_CODE
'2', 'Lipponen, Markku', 'Simo Kaarion katu 1 A 2,33720
Tampere', 'FI'

Such data are not standardized and can be even missing
[address – especially for offices not EP, US]

Can change within time (add/delete/edit)

Information drill down: Applicants

Applicant = patent owner collected during application process.

NAME, ADDRESS (optional), COUNTRY

PERSON_ID, PERSON_NAME, PERSON_ADDRESS, PERSON_CTRY_CODE
‘1', 'Nokia Corporation', ‘Keilalahdentie 4,02150 Espoo', 'FI'

Such data are not standardized and can be even missing [address – especially for offices not EP, US]

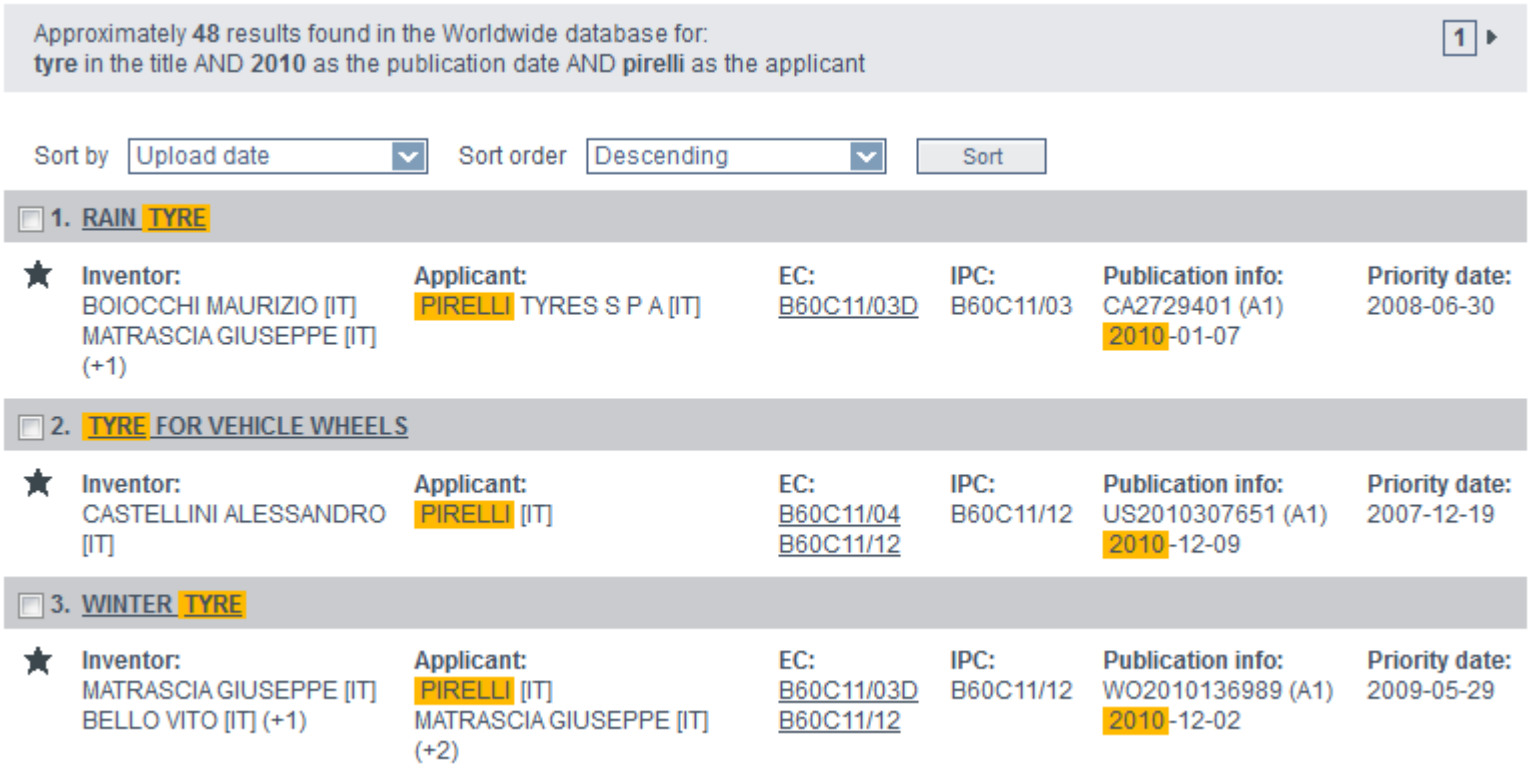
Can change within time (add/delete/edit) → **CHANGE OF OWNERHIP** – tracked in special databases [ep register / inpadoc legal / US aasignments]

Inventor vs applicant

- Applicant country = ownership place
- Inventors country = place of invention

- APP DE – INV IT : foreign ownership of domestic invention
- APP DE AP IT : coownership
- INV IT INV DE : coinvention

Drill down on other data: from ESPACENET PIRELLI + TYRE + 2010



Approximately **48** results found in the Worldwide database for:
tyre in the title AND **2010** as the publication date AND **pirelli** as the applicant

1 ▸

Sort by Upload date | Sort order Descending | Sort

1. RAIN TYRE

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
BOIOCCHI MAURIZIO [IT] MATRASCIA GIUSEPPE [IT] (+1)	PIRELLI TYRES S P A [IT]	B60C11/03D	B60C11/03	CA2729401 (A1) 2010-01-07	2008-06-30

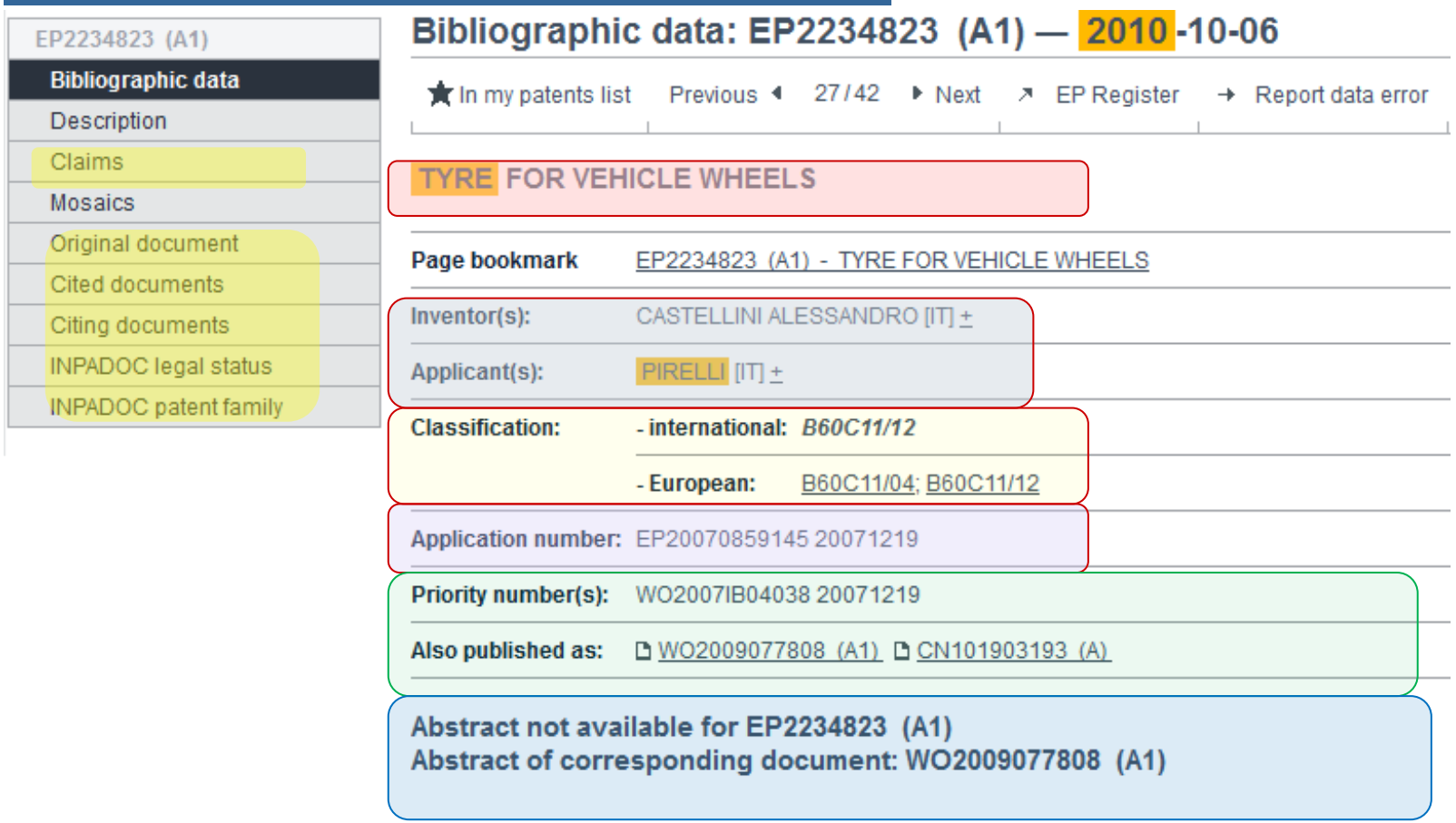
2. TYRE FOR VEHICLE WHEELS

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
CASTELLINI ALESSANDRO [IT]	PIRELLI [IT]	B60C11/04 B60C11/12	B60C11/12	US2010307651 (A1) 2010-12-09	2007-12-19

3. WINTER TYRE

Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
MATRASCIA GIUSEPPE [IT] BELLO VITO [IT] (+1)	PIRELLI [IT] MATRASCIA GIUSEPPE [IT] (+2)	B60C11/03D B60C11/12	B60C11/12	WO2010136989 (A1) 2010-12-02	2009-05-29

Database on line: ESPACENET (II)
PIRELLI TYRE FOR VEHICLE WEELS



Database on line: ESPACENET (III)
CLAIMS PIRELLI TYRE FOR VEHICLE WEELS

- CLAIMS
  1. Tyre (1) for vehicle wheels, having a tread band (10) comprising an annular central portion (1Oi) astride an equatorial plane (Y-Y) and two annular shoulder portions (10ii) arranged on axially opposite sides with respect to the annular central portion (1Oi) , the annular central portion (1Oi) being separated from each annular shoulder portion (10ii) by a respective circumferential groove (16), wherein the annular central portion (1Oi) comprises a plurality of blocks (20) arranged along at least one circumferential row (21) comprised between two circumferential grooves (16) , and at least one transversal sipe (30) adapted to define two circumferentially consecutive blocks (20) , wherein the transversal sipe (30) has a main surface (301) orientated in a substantially radial direction and provided with at least one deformation
  (302) defining, in the adjacent blocks (20), respective portions of mutual constraint, wherein said deformation
  (302) comprises at least one undercut portion (304) in a circumferential direction.
  2. Tyre (1) according to claim 1, wherein the main surface
  (301) is flat.
  3. Tyre (1) according to claim 1, wherein the deformation
  (302) extends axially in a central area (303) of the sipe (30).
  4. Tyre (1) according to any one of the previous claims, wherein said deformation (302) extends radially in a central area (303) of the sipe (30) .
  5. Tyre (1) according to claim 4, wherein said deformation (302) extends radially along the entire radial extension of the sipe (30) .

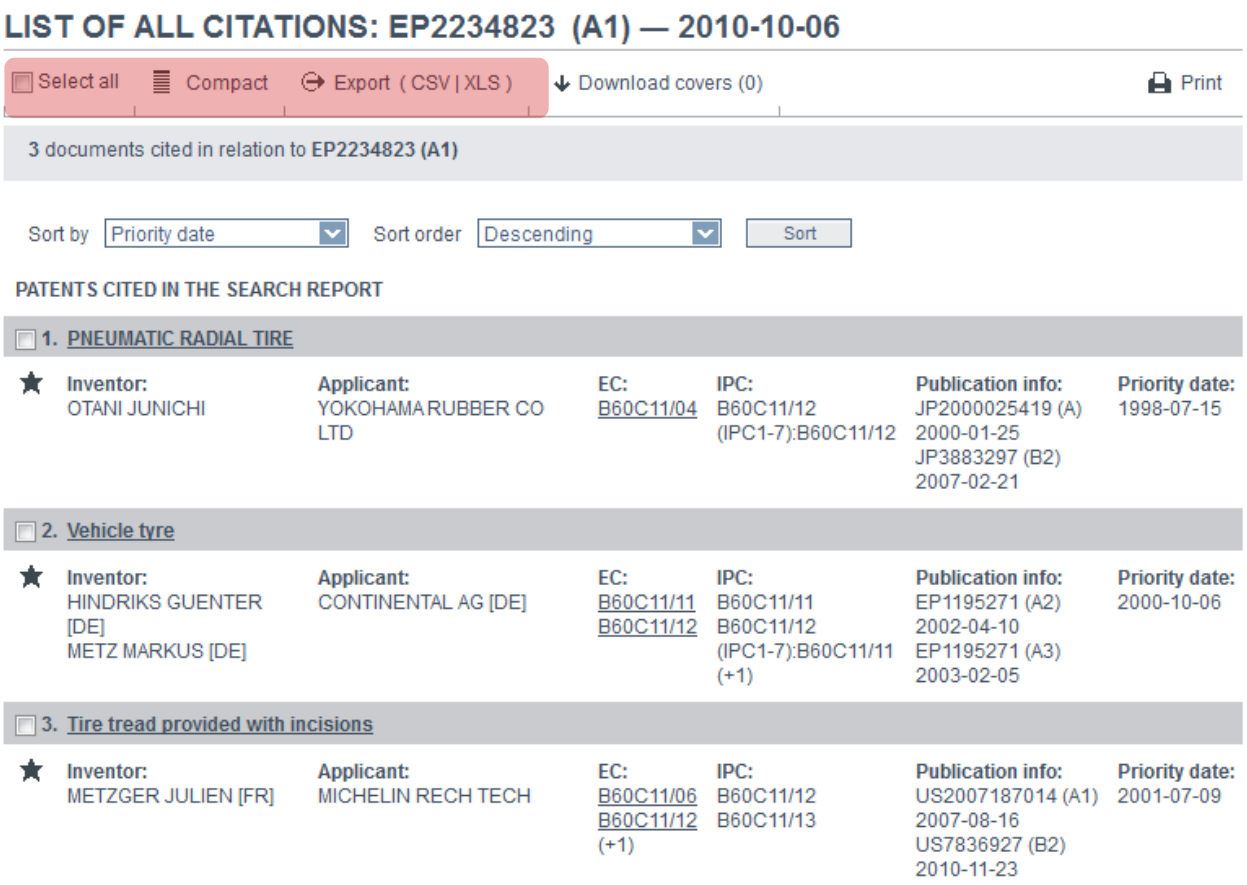
- **+ Altri 23 claims**

Claims indicate what you want to protect from counterfeiters and are either the legal part of the patent.

The number of claims is a patent value indicator.

The espacenet data is descriptive and can only be analyzed individually

Database on line: ESPACENET (IV)
CITATIONS PIRELLI TYRE FOR VEHICLE WEELS



LIST OF ALL CITATIONS: EP2234823 (A1) — 2010-10-06

Select all | Compact | Export (CSV | XLS) | Download covers (0) | Print

3 documents cited in relation to **EP2234823 (A1)**

Sort by: Priority date | Sort order: Descending | Sort

PATENTS CITED IN THE SEARCH REPORT

1. PNEUMATIC RADIAL TIRE						
★	**Inventor:** OTANI JUNICHI	**Applicant:** YOKOHAMA RUBBER CO LTD	**EC:** B60C11/04	**IPC:** B60C11/12 (IPC1-7):B60C11/12	**Publication info:** JP2000025419 (A) 2000-01-25 JP3883297 (B2) 2007-02-21	**Priority date:** 1998-07-15
2. Vehicle tyre						
★	**Inventor:** HINDRIKS GUENTER [DE] METZ MARKUS [DE]	**Applicant:** CONTINENTAL AG [DE]	**EC:** B60C11/11 B60C11/12	**IPC:** B60C11/11 B60C11/12 (IPC1-7):B60C11/11 (+1)	**Publication info:** EP1195271 (A2) 2002-04-10 EP1195271 (A3) 2003-02-05	**Priority date:** 2000-10-06
3. Tire tread provided with incisions						
★	**Inventor:** METZGER JULIEN [FR]	**Applicant:** MICHELIN RECH TECH	**EC:** B60C11/06 B60C11/12 (+1)	**IPC:** B60C11/12 B60C11/13	**Publication info:** US2007187014 (A1) 2007-08-16 US7836927 (B2) 2010-11-23	**Priority date:** 2001-07-09

Exportable to XLS;

Navigable (hyperlink)

The number of citations received is indicator of patent value and people's / business knowledge flows

Database on line: ESPACENET (V)

CITATIONS PIRELLI TYRE FOR VEHICLE WEELS

How do citations appear in the original document

(note **category** indicates how important it is)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim
Y	JP 2000 025419 A (YOKOHAMA RUBBER CO LTD) 25 January 2000 (2000-01-25) abstract; figures 1-5	1-19,21, 22,24, 25,28
X	EP 1 195 271 A (CONTINENTAL AG [DE]) 10 April 2002 (2002-04-10) paragraphs [0012] - [0019]; figures 1-3	1-28
X	US 2007/187014 A1 (METZGER JULIEN [FR]) 16 August 2007 (2007-08-16) cited in the application paragraphs [0056] - [0063]; figures 3,4	1-14

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

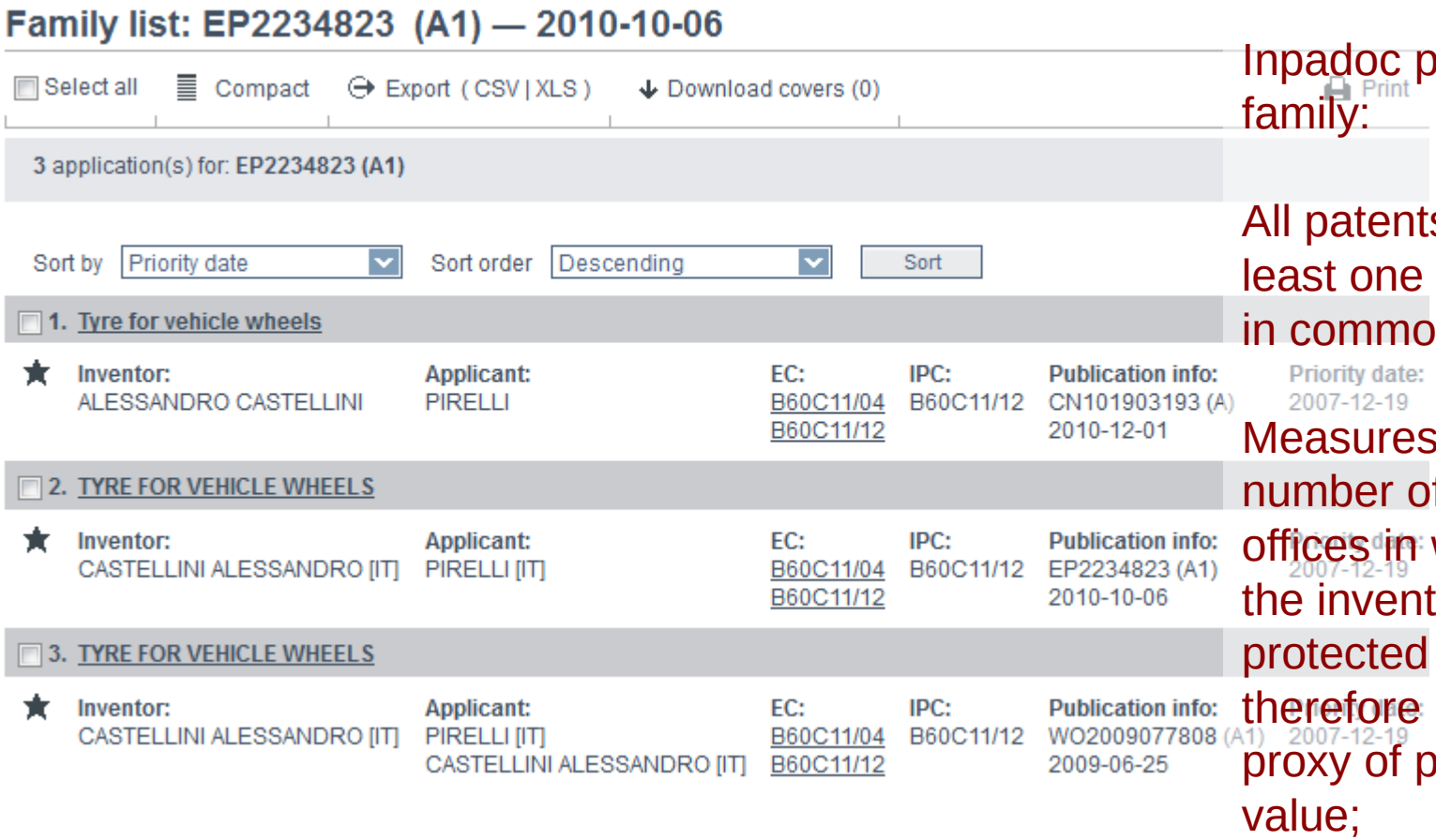
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Database on line: ESPACENET (VII)
FAMILY PIRELLI TYRE FOR VEHICLE WEELS



Family list: EP2234823 (A1) — 2010-10-06

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3 application(s) for: **EP2234823 (A1)**

Sort by: Priority date | Sort order: Descending | Sort

	Inventor:	Applicant:	EC:	IPC:	Publication info:	Priority date:
1. Tyre for vehicle wheels	ALESSANDRO CASTELLINI	PIRELLI	B60C11/04 B60C11/12	B60C11/12	CN101903193 (A) 2010-12-01	2007-12-19
2. TYRE FOR VEHICLE WHEELS	CASTELLINI ALESSANDRO [IT]	PIRELLI [IT]	B60C11/04 B60C11/12	B60C11/12	EP2234823 (A1) 2010-10-06	2007-12-19
3. TYRE FOR VEHICLE WHEELS	CASTELLINI ALESSANDRO [IT]	PIRELLI [IT] CASTELLINI ALESSANDRO [IT]	B60C11/04 B60C11/12	B60C11/12	WO2009077808 (A1) 2009-06-25	2007-12-19

Inpadoc patent family:

All patents with at least one priority in common;

Measures the number of patent offices in which the invention is protected and therefore is a proxy of patent value;

Examples (II): ***RIM vs RTP, inc***
eBay Inc. v. MercExchange, L.L.C.

In 2001, RTP suits RIM for infringing patent US5436960 in messaging system.

Facing the risk of a injunction that takes away blackberries from shelves, RIM pays $ 612M to RTP for patent infringment.

In 2006, MercExchange suits Ebay in front of the Supreme Court of the United States for Violation US Patent 5845265 for the 'buy it now'

Ebay pays $ 30 M for damage and in 2008 acquires the patent from MercExchange.

Database on line: ESPACENET (VIII)
INPADOC LEGAL DATA EBAY BUY IT NOW

PRS Date :	2008/02/29
PRS Code :	AS
Code Expl.:	ASSIGNMENT
NEW OWNER :	EBAY, INC., CALIFORNIA
EFFECTIVE DATE :	20080225
FURTHER INFORMATION :	ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:MERCEXCHANGE, L.L.C.;REEL/FRAME:020609/0318

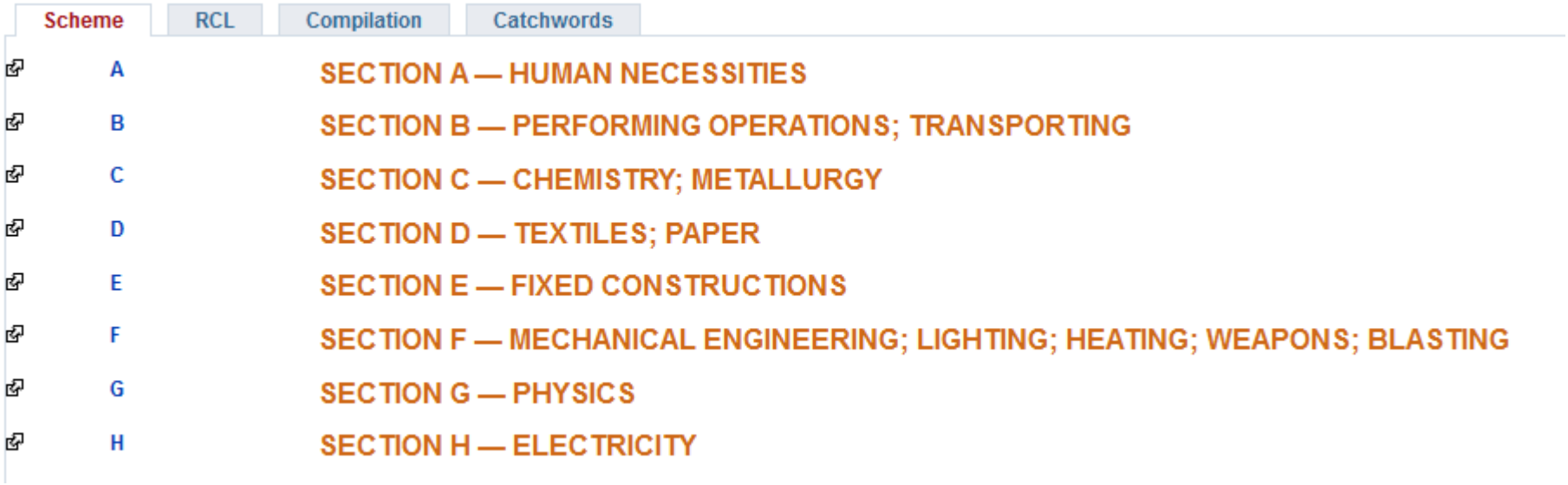
US5845265

On 25/2/2008 the business method *buy it now* is purchased by ebay

Inpadoc legal data:

Property changes, oppositions, extensions, licenses, renewals ...
→patent value indicators
In espacenet data is descriptive and can only be analyzed individually

Database on line: WIPO IPC classes http://www.wipo.int/ipcpub



Allows navigation within classes and keywords search

Database off line: PATSTAT

http://www.epo.org/searching/subscription/raw/product-14-24.html

Contains complete patent data for over 100 patent offices, 60M patents (= Espacenet)
Relational DB across over 20 tables

Advantages:

Completeness of data; available geographic data (EP / EU)
Standard used by many institutions
Several plug and play resources (standard names, academic inventors ...)

Disadvantages:

Access Fee
High setup cost
Non-standardized and non-reclassified data;

Database off line: PATENTSVIEW

http://www.patentsview.org/

platform uses data derived from the US Patent and Trademark Office (USPTO) bulk data files. These data are provided for research purposes and do not constitute the official USPTO record.

Advantages:
Free Resource
Standardized and aggregated data
Constant updating of data
Easy graphic interface
Geocoding
Entity resolution (inv ,app)

Disadvantages:
USPTO Only
Medium setup cost