



Patents and other Intellectual Property



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ABACUS Patentanwälte

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Adliswil/Zürich (CH) + Horb/Neckar (DE)



Why?

USA 1787

Constitution, Article I, section 8:

"The Congress shall have Power: ... To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."

1790 - *"An Act to promote the progress of useful Arts" (Patent Act)*



IP

1. IP rights
2. Some history
3. Their importance
4. Their role in science



IP?

usually



Intellectual property (IP) refers to various

exclusive rights

recognized or granted for

creations of the mind.



IP rights?



The most important IP rights:

Patent + Gebrauchsmuster – for a technical invention

Design (patent) = Geschmacksmuster – for a design, style, form, ...

Trademark = Marke – a label or brand to distinguish goods + services

Copyright = Urheberrecht – for a literary, musical, artistic, ... work

There are some more:

Trade secret

Mask work (Topographieschutz)

Plant patent, plant breeders' right (Sortenschutz)

...



Patent



The "deal" between the inventor and the public:

The granted patent, i.e. the "exclusive right", allows the inventor/assignee

- to exclusively make, offer, use, market, import, or own, i.e. exploit the invention himself/herself
- to exclude others from any of the above
- to license any of the above to others
- or to sell the invention/patent.

In return, the invention will be

- published, i.e. its details made known to the public, and
- is "free", i.e. may be used by anyone when the patent is expired, thus increasing general knowledge and state of the art.

Patent

Patent (+ Gebrauchsmuster = petty patent)

- needs written application with description and claims, invention must be explained (description/drawings) and defined (claims)
- is published usually 18 months after filing
- requires payment of fees for prior art search and examination
- is examined re novelty, non-obviousness (inventive step), and industrial application
- grants an exclusive right ("monopoly") within national country for a limited period up to 20 years from filing date
- requires annuity or maintenance payments

Patent

General structure

Title, Inventor(s), Filing date, ...

Description

- Field of the invention – *high power semiconductor lasers*
- Prior art – *similar known high power semiconductor lasers*
- Problem of prior art devices – *need expensive liquid cooling*
- Objective(s) – *replace liquid cooling by air cooling*
- The invention – *brief definition of what is new*
- Advantage(s) – *less expensive, more robust*
- Description of example(s) – *one or more detailed applications, structures*
- Drawings – *showing the applications, structures*

Claims – *define the invention and limit it re prior art*

Abstract – *abstract of the invention*

History (some)

Timetable of patent laws

15th century - Venezia: Statute of 1474

17th century - England: Statute of Monopolies

18th century - USA

1787 - Constitution, Article I, section 8: *"The Congress shall have Power: ... To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."*

1790 - *"An Act to promote the progress of useful Arts" (Patent Act)*

19th century - Europe

"Patentgesetz" 1877 in Deutschland, 1888 in CH



First United States Patent Grant
July 31, 1790

The United States.

To all to whom these Presents shall come. Greeting.

Whereas Samuel Hopkins of the City of Philadelphia and State of Pennsylvania hath discovered an Improvement, not known or used before, such Discovery, in the making of Pot. ash and Pearl. ash by a new Apparatus and Procefs, that is to say, in the making of Pearl. ash 1st by burning the raw Ashes in a Furnace, 2^d by dissolving and boiling them when so burnt in Water, 3^d by drawing off and settling the ley, and 4th by boiling the ley into Salts which then are the true Pearl. ash; and also in the making of Pot. ash by fluxing the Pearl. ash so made as aforesaid; which Operation of burning the raw Ashes in a Furnace, preparatory to their Dissolution and boiling in Water, is new, leaves little Residuum; and produces a much greater Quantity of Salt: These are therefore in pursuance of the Act, entitled "An Act to promote the Progress of useful Arts", to grant to the said Samuel Hopkins, his Heirs, Administrators and Assigns, for the Term of fourteen Years, the sole and exclusive Right and Liberty of using, and vending to others the said Discovery, of burning the raw Ashes previous to their being dissolved and boiled in Water, according to the true Intent and Meaning, of the Act aforesaid. In Testimony whereof I have caused these Letters to be made patent, and the Seal of the United States to be hereunto affixed Given under my Hand at the City of New York this thirty first Day of July in the Year of our Lord one thousand seven hundred & Ninety.

G. Washington

City of New York July 31st 1790. -

I do hereby certify that the foregoing Letters patent were delivered to me in pursuance of the Act, entitled "An Act to promote the Progress of useful Arts"; that I have examined the same, and find them conformable to the said Act.

Edm: R. R. A. S. H. - Attorney General for the United States.

PATENTSCHRIFT

1877.

— № 1 —

Klasse 22.

JOH. ZELTNER, IN FIRMA: NÜRNBERGER ULTRAMARINFABRIK.

Verfahren zur Herstellung einer rothen Ultramarinfarbe.

Patentirt im Deutschen Reiche vom 2. Juli 1877 ab.

Das Verfahren zur Fabrikation dieses rothen Ultramarins ist folgendes:
Ultramarinviolett wird, auf 130—150° Celsius erhitzt, der Einwirkung von Dämpfen einer mehr oder weniger concentrirten Salpetersäure ausgesetzt. Stark concentrirte Salpetersäure ergibt eine bis zu lichtem Rosa aufsteigende Farbe; verdünntere Salpetersäure dagegen ein tieferes und dunkleres rothes Ultramarin.

Publié le 1^{er} novembre 1883

CONFÉDÉRATION SUISSE

BUREAU FÉDÉRAL DE LA PROPRIÉTÉ INTELLECTUELLE



EXPOSÉ D'INVENTION

Brevet N° 1

Classe 143

PAUL PERRET à LA CHAUX-DE-FONDS (Suisse)

Perfectionnements apportés à la construction de mouvements de montres de toutes dimensions

Pour être pratiques, les montres doivent être d'une construction simple dans laquelle les différents parties peuvent se démonter séparément et avec facilité. Chaque pièce essentielle doit pouvoir être soignée sans nécessiter un ajustement difficile, enfin toutes les parties complémentaires doivent pouvoir être remplacées facilement. La bon goût et la légèreté des formes augmentent naturellement la valeur des montres et dans ces conditions l'élégance de la disposition des pièces constitue une partie importante de la construction d'un calibre.

Le brevet que j'ai l'honneur de vous adresser en ce qui concerne les montres à remontoir, a été déposé le 15 mai 1883. Il a pour objet les perfectionnements apportés à la construction de mouvements de montres de toutes dimensions.

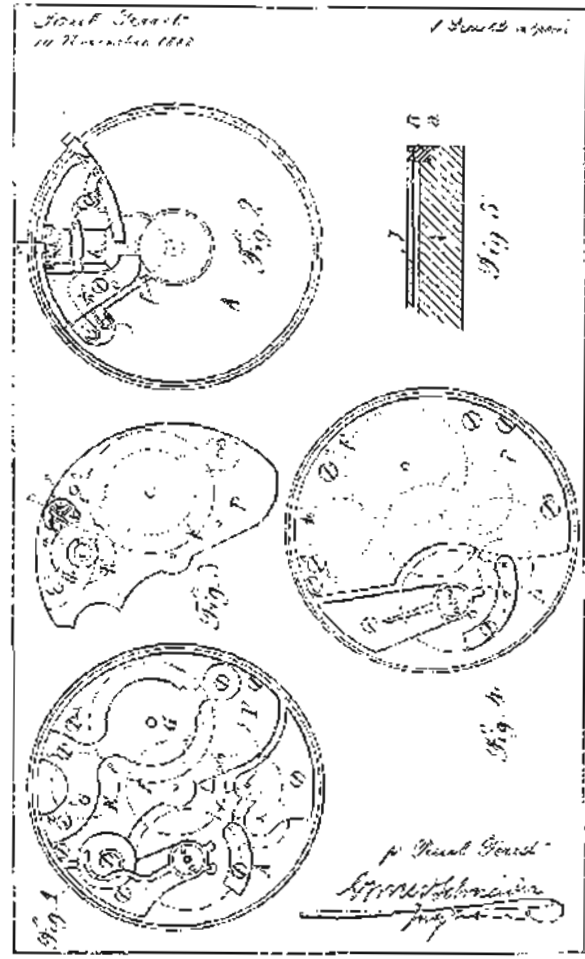
La fig. 1 du dessin réjoint représente le dessus et la fig. 2 le dessous de mon calibre. La fig. 3 représente le dessus d'une variante du même. La fig. 4 représente séparément le mécanisme de remontoir. Dans toutes les fig.

les les mêmes indications désignent les mêmes pièces. La demi-platine *P* est en *h* à la fin fine *A* ou moyen de trois pièces *1*, *2* et *3*. Le pont *D* d'une part le baïlet, la rose de couronne *E* et celle de palette *F* d'autre part le mécanisme de remontoir qui est fixé au pont *P* au moyen de la barette *G*. Les vis *1* et *2* aboutissent à la base la barette *G* au pont *P* et se dirigent aux piliers *4* et *5* qui sont de la pièce *A*. La vis *3* ne s'élève que le pont *P* la platine *A* et celle *4* ou celle *5* sur la barette *G* au pont *P*.

Il en résulte que si l'on n'a exécuté qu'un remontoir, on verra que les vis *1*, *3* et *4* et la vis *2* inclinent le pont au-dessus, d'autre part si l'on veut visiter les courbes sans avoir à visiter le remontoir, on verra que les vis *1*, *2* et *3* et l'on peut soulever le pont *P* avec tout le mécanisme de remontoir qu'il porte. Le cas échéant le pont *D* on peut porter la rose de couronne et celle de l'échappement.

Dans l'équation de la demi-platine *1* sont indiqués la rose de couronne *E* et la barette *G* baïlet *F* ainsi que le cliquet *6* et son ressort *7* (voir fig. 5).

Le cliquet se s'engage dans la denture de la rose de couronne *E* qui tourne autour d'un arceau d'acier soutenant lui-même un support



Paul Perret
Approuvé
[Signature]

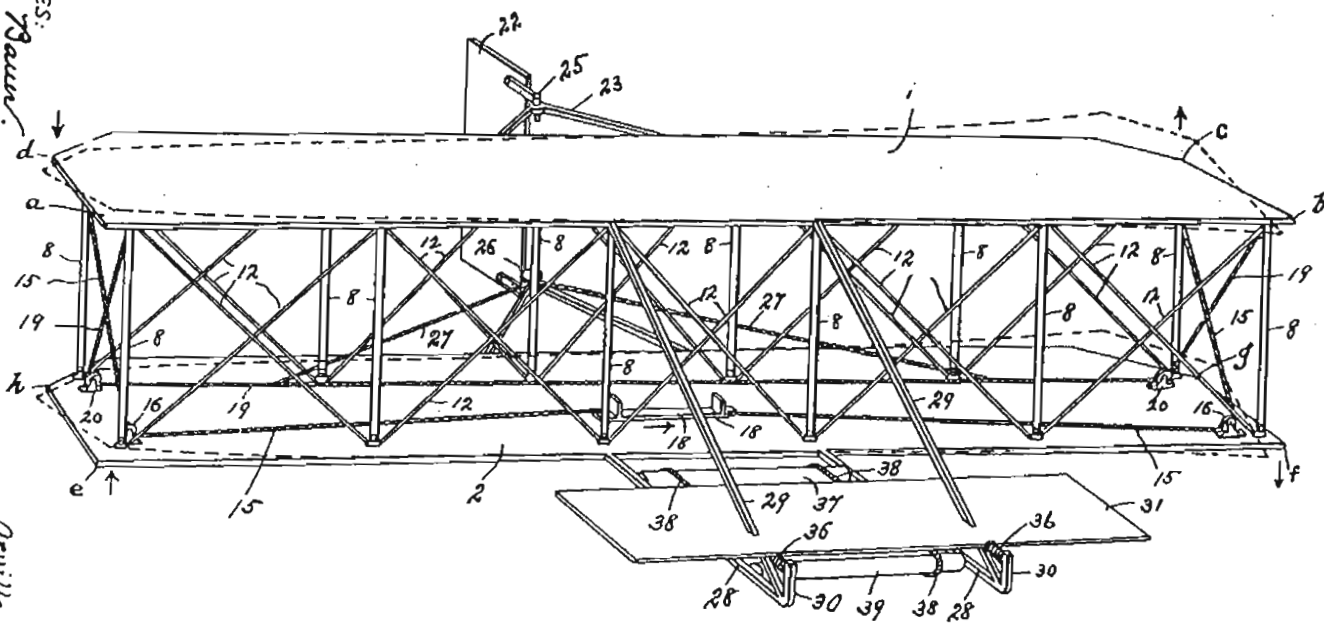
No. 821,393.

PATENTED MAY 22, 1906.

O. & W. WRIGHT.
FLYING MACHINE.
APPLICATION FILED MAR. 23, 1903.

3 SHEETS-SHEET 1.

FIG. 1.



WITNESSES:
William F. Sawyer.
James Miller.

INVENTORS.
Orville Wright.
Wilbur Wright.
BY *H. A. Coulter*,
ATTORNEY.



US05841420A

United States Patent [19]

Kaply et al.

[11] Patent Number: 5,841,420

[22] Date of Patent: Nov. 24, 1998

[54] METHOD AND SYSTEM IN A DATA PROCESSING SYSTEM FOR PROVIDING ENVIRONMENT FOR DISPLAYING PREVIOUSLY OBSERVED INFORMATION

[70] Inventors: Michael Aaron Kaply, Delray Beach; Anthony Edward Martens, Boca Raton, both of Fla.

[72] Assignor: International Business Machines Corporation, Armonk, N.Y.

[21] Appl. No.: 08/660

[22] Filed: Aug. 18, 1998

[51] Int. Cl.⁷ G06G 3/00

[52] U.S. Cl. 348/118; 348/348; 348/344

[58] Field of Search 348/118, 348/128, 327, 340, 344

[36] References Cited

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5,071,286 9/1996 Yang et al. 349,911

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06/094541 3/1994 European Pat. Off.

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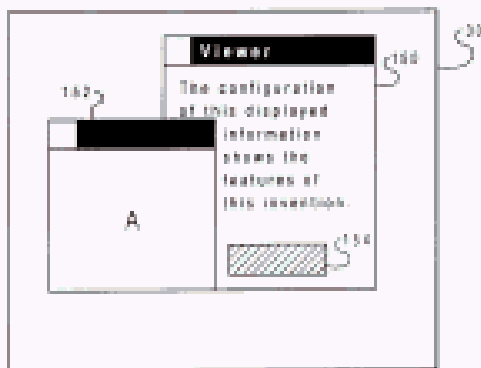
Third ACM Conference on Hypertext, Proceedings of Hypertext '91, Dec. 15-18, 1990, San Antonio, TX, "Session Management in Hypertext Systems with Rubber Sheet Layouts", Kabanouchi et al., pp. 31-40.

Primary Examiner—Richard A. Hoops
Assistant Examiner—Ricardo Garcia
Attorney, Agent, or Firm—Mark S. Walker, Andrew J. Dillon

[37] ABSTRACT

In a data processing system having a display and an operating system, information is displayed within a first window utilizing information display software. Thereafter, the process displays a second window displayed within the display at a location that obscures a portion of the information displayed in the first window. Utilizing the operating system, the process utilizes the information display software that the portion of the information within the first window is obscured by the second window. In response to receiving this information, the information display software displays, in the first window, the portion of the information that had been obscured by the second window, wherein the information in the first window previously obscured by the second window may be viewed in the first window via the data processing system user. Information displayed in the first window may be textual or graphical. The information display software may also receive information from the system that specifies coordinates of available display area. In response to predetermined conditions, previously observed information may be displayed in available display area in a relocated first window.

9 Claims, 11 Drawing Sheets



US Patent today

Patents in Europe

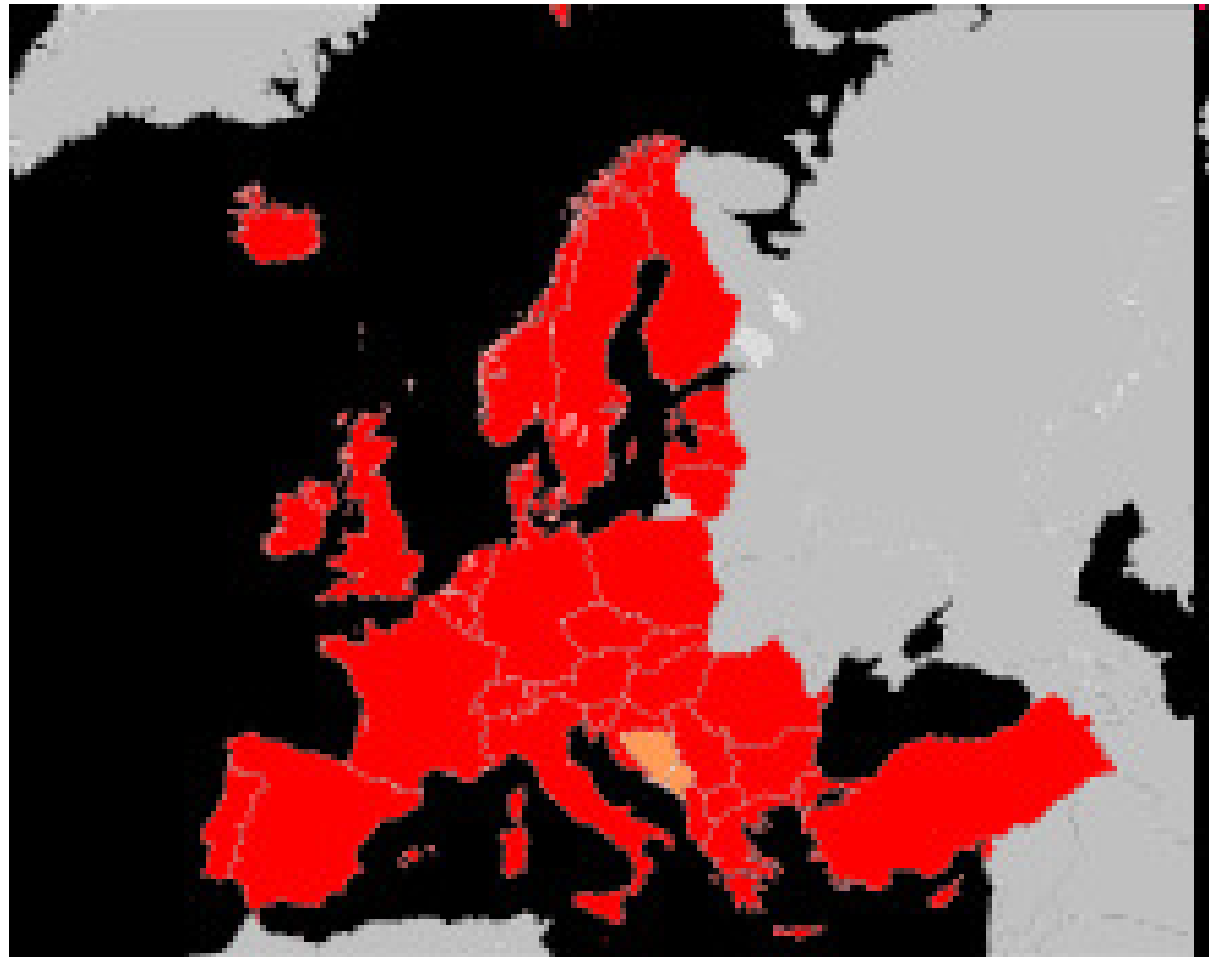
EPC

European Patent Convention

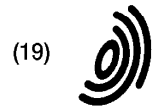
Unified prosecution for 27 EPC countries,

There is no "European Patent".
Instead, a bundle of national rights requiring national validation.

pic from Wikipedia



European Patent Application



Europäisches Patentamt
European Patent Office
Office européen des brevets



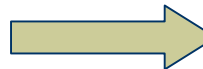
(11) EP 0 902 381 A3

(12) EUROPEAN PATENT APPLICATION



(88) Date of publication A3:
24.03.1999 Bulletin 1999/12

(51) Int. Cl.⁶: G06F 17/60



(43) Date of publication A2:
17.03.1999 Bulletin 1999/11

(21) Application number: 98117261.2



(22) Date of filing: 11.09.1998

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: 12.09.1997 US 928951
23.03.1998 US 46503

(71) Applicant: Amazon.Com, Inc.
Seattle, WA 98101 (US)

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Seattle, Washington 98115 (US)
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Woodinville, Washington 98115 (US)

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Stockmair & Schwanhäusser
Anwaltssozietät
Maximilianstrasse 58
80538 München (DE)

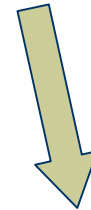
(54) Method and system for placing a purchase order via a communications network

"European Patent"



(19)

Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 0 927 945 B1

(12)

EUROPEAN PATENT SPECIFICATION



(45) Date of publication and mention of the grant of the patent:
23.04.2003 Bulletin 2003/17

(51) Int Cl.7: **G06F 17/60**

(21) Application number: **99105948.6**



(22) Date of filing: **11.09.1998**

(54) **Method and system for placing a purchase order via a communications network**

System und Verfahren zum Bestellen über elektronisches Nachrichtennetzwerk

Méthode et système pour effectuer une commande par un réseau de communication

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**

• **Kaphan, Shel**
Seattle, WA 98115 (US)

(30) Priority: **12.09.1997 US 928951**
23.03.1998 US 46503

(74) Representative: **Grünecker, Kinkeldey,**
Stockmair & Schwanhäusser Anwaltssozietät
Maximilianstrasse 58
80538 München (DE)

(43) Date of publication of application:
07.07.1999 Bulletin 1999/27

(56) References cited:
EP-A- 0 845 747

EP-A- 0 902 381



Design

Design (design patent) = Geschmacksmuster

- usually needs written application with drawing(s) and description
- requires payment of fees
- is not examined
- grants "monopoly" within national country or European Union for a limited period (EU Community Design: 5 years from filing date with renewals every 5 years up to 25 years)

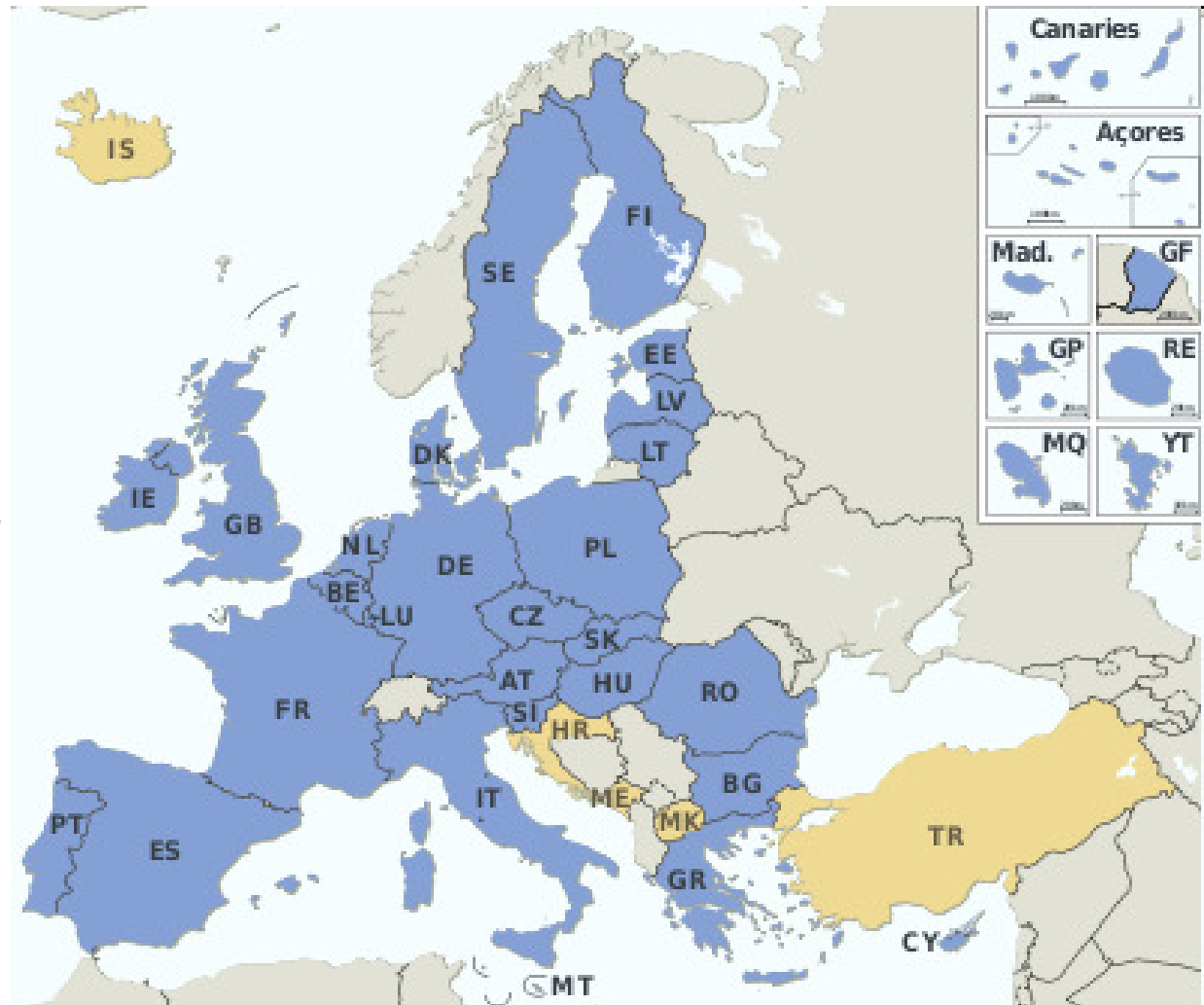
(There also also rights in an unregistered design nationally and in the EU.)

EU Designs

EU
European Union

Unified prosecution
resulting in a
"Registered
Community Design"

pic from Wikipedia



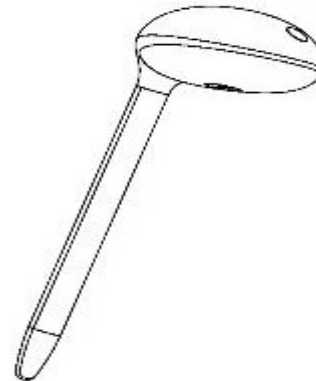
EU Design

Registered Community Design

Design	
Filing date:	25/08/2011
Registration date:	25/08/2011
Publication date (A1):	07/09/2011
Expiry date:	25/08/2016
Locarno class-subclass:	10.05 (↔ EUROLOCARNO)
Verbal element:	
Status:	Registered and fully published (A1) (↔ Glossary)
Language of filing:	English
Second language:	German

Representation

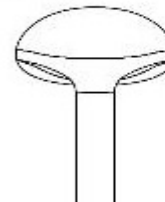
⊕ 0001.1



⊕ 0001.2



⊕ 0001.3



⊕ 0001.4



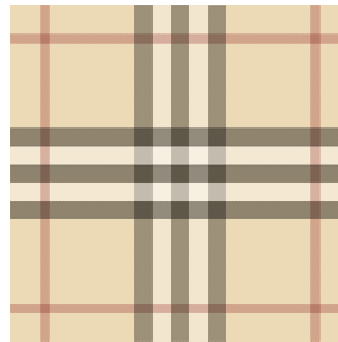
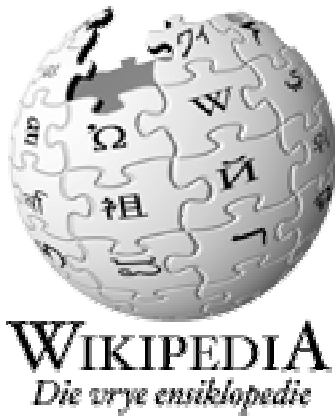
Trademark

Trademark (british: trade mark) ® = registered TM

- Word, figure, figurative mark, package (bottle, box), melody, scent, pattern ... anything that
- needs written application with listing of goods and services
- requires payment of fees
- examined re descriptiveness of the TM and/or identical/similar TMs
- provides "monopoly" within national country or European Union for a potentially unlimited period (EU Community TM: 10 years from filing date with renewals every 10 years)

XTM identifies an unregistered TM which provides rights in some countries (e.g. USA) – not in EU or CH

Trademarks



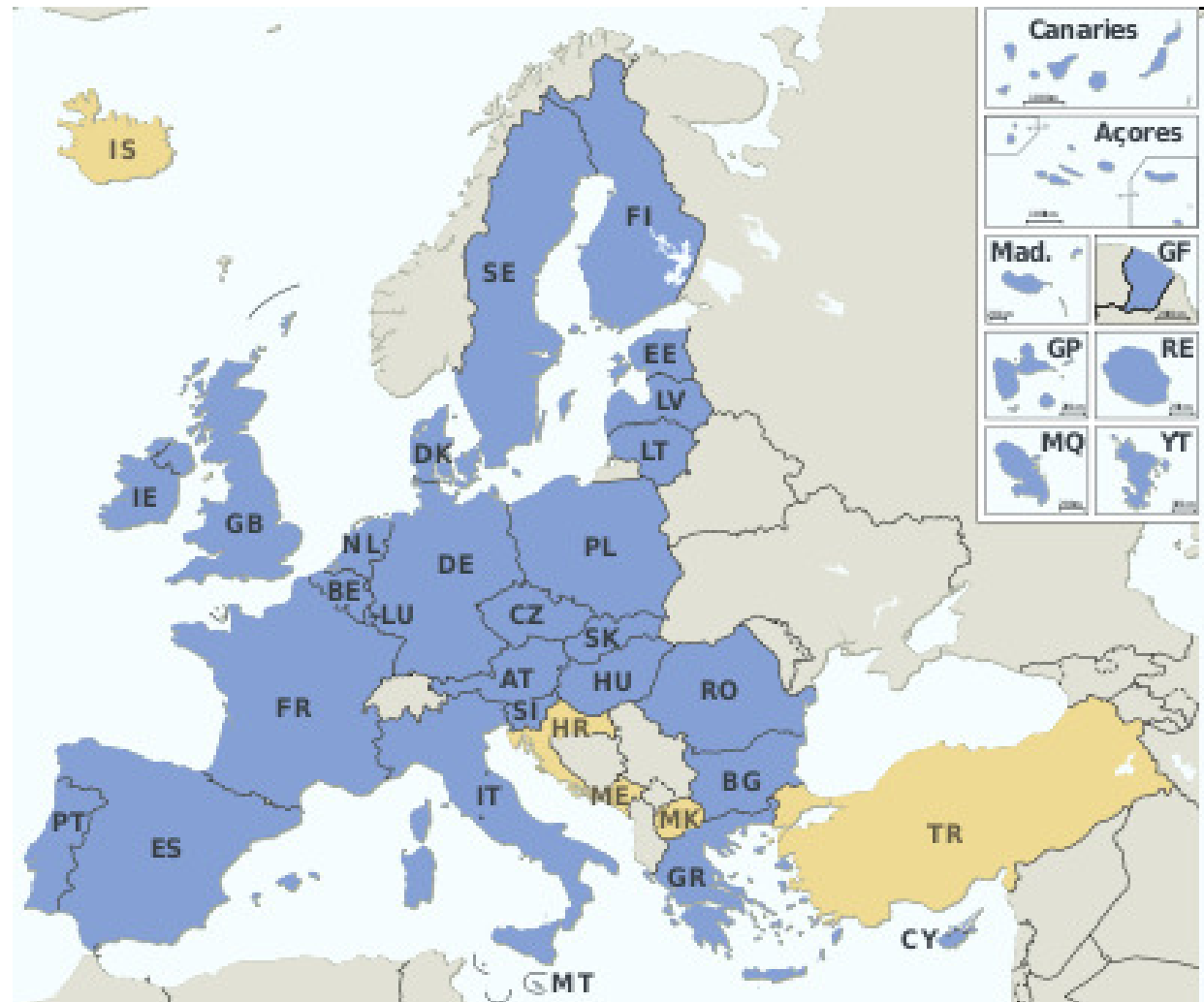
EU Trademark

European Union

Unified prosecution
resulting in a
"Registered
Community TM"

(CH not covered)

pic from Wikipedia



EU Trademark

Registered
Community TM

(CH not covered)

Marke 	
Anmeldetag:	02/10/1996
Tag der Eintragung:	16/09/1999
Ablaufdatum:	02/10/2016
Nizzaer Klassifikation:	7, 8, 9, 10, 11, 17 (Nizzaer Klassifikation)
Marke:	Einzelmarke
Art der Marke:	Bildmarke
Wiener Klassifikation:	26.4.2, 26.4.5, 26.4.22 (Wiener Klassifikation)
Erlangte Unterscheidungskraft:	Nein
Zeichen des Anmelders:	480/04 EU
Verfahrensstand der Marke:	Eingetragen Glossar
	Veröffentlichung der Eintragung <input checked="" type="checkbox"/>
	(Veröffentlichungen B1 oder Veröffentlichungen B2)
	(Statusverlauf)
Erste Sprache:	Deutsch
Zweite Sprache:	Englisch

Graphische Wiedergabe



Verzeichnis der Waren und Dienstleistungen

Nizzaer Klassifikation:	7
Verzeichnis der Waren und Dienstleistungen	Fabrikations-, Werkzeug- und Verpackungsmaschinen für Industrie und Gewerbe, Schweißmaschinen, Fräsmaschinen, Gebläse, Heißluftgebläse, Prüfmaschinen und elektrische Steuerungseinrichtungen als Teile der vorgenannten Maschinen.
Nizzaer Klassifikation:	8
Verzeichnis der Waren und Dienstleistungen	Handbetätigte Werkzeuge und Geräte, Lötapparate.



IR Trademark

International Registration (IR) for TMs

One single, unified application and procedure before WIPO
(World Intellectual Property Organisation in Geneva)

Practically any country worldwide can be individually selected

Fee for each country

Each country may refuse protection

Opposition by third party in each country

Finally single international registration as IR trademark

IR Trademark

894428 - PANTHERNET

Registration

2006/36 Gaz, 12.10.2006, AT, BX, CZ, DE, DK, ES, FI, FR, GB, GR, HR, HU, IE, IT, NO, PL, PT, RO, SE, SK

Grant of protection subject to opposition

2006/48 Gaz, 04.01.2007, IE

861 Total provisional refusal of protection

2006/47 Gaz, 28.12.2006, GB

Grant of protection subject to opposition

2007/10 Gaz, 12.04.2007, HU

868 Grant of protection

2007/12 Gaz, 26.04.2007, BX

861 Total provisional refusal of protection

2007/12 Gaz, 26.04.2007, NO

868 Grant of protection

2007/14 Gaz, 10.05.2007, IE

861 Total provisional refusal of protection

2007/14 Gaz, 10.05.2007, ES

862 Partial provisional refusal of protection

2007/16 Gaz, 24.05.2007, FI



Licensing of IP

License types

- exclusive (to one party only, no other licensee)
- non-exclusive
- for a fee: lump sum, quota license, time-limited, area-limited license, ...
- cross licensing (exchange of licenses): with/without additional payment(s), down payment

Companies with large patent portfolios recover parts of their expenditures for research and development by licensing.

Patents ...

Take IBM

IBM holds patents on diskettes, microprocessors for video games, erasable read-write CD, etc.: total number of patents worldwide is about 40 000, leads US patentee list for years with about 5 000 new patents p.a.

IBM says:

- Patents protect IBM's products and services from imitators;
- IBM gets leverage from its patent portfolio for licensing negotiations;
- IBM's patents produce considerable income: Fees from licensing, selling IP (recently to Google), custom-developing IP for other companies, etc.

In 2010, royalty income from licensing, including patents, was around \$1.5 billion: " IBM's IP department is a profit center ... "

In 2009, IBM spent \$5.8 billion on research and development.



Patents ...

Take Microsoft

MS, starting the patent race much later than *IBM*, received its 10 000th US patent in 2009, rising to the top 5 among patent recipients in the US.

MS and *Google* fighting a patent battle. *Google* bought *Motorola's* mobile division, several 1000 patents from *IBM* and others for more than \$20 billion.

And so on:

Nortel's patents were sold to a group of *Apple*, *Microsoft*, *RIM*, and *Sony* for \$4.4 billion.

Xerox sues *Google*, *YouTube* and *Yahoo* over "search patents".

.....

Copyright

Copyright © = Urheberrecht, author's right

- for literary, musical, artistic, ... works, covering any artistic and creative expression (form) of an idea/information that is substantive and discrete, but only the original expression, not the idea itself:
- work, creation, opus must possess "originality"
- no written application required
- no fees required
- no examination
- protection originates with creation of the work
- provides protection practically instantly and worldwide through Berne Convention for a limited, but long period
(e.g. CH + DE: 70 years for literary works, 50 years for programs)



©opyright

Advantages

- a work is protected instantly with its creation,
- is protected worldwide, and
- at no cost.

Disadvantage

- its legal certainty is debatable: there is no examination so that every dispute requires a check, often a second dispute, whether the work in question is protected.

© History (some)

Copyright protection for computer programs?

A long debate, finally settled by amending copyright act in ...

1980	USA
1983	Hungary
1984	Australia
1985	Germany, France, Great Britain
1992/93	Schweiz

Patent protection for computer programs?

Still uncertain	USPTO: rather positive
	EPO: so-so – EPC excludes "programs as such"
	German PTO: rather not – act excludes programs



©opyright

Some examples of multi-billion business fields:

- music: records, CDs, tapes, performances, ...
- movies, films: tapes, DVDs, ...
- writings: books, pamphlets, advertizing, scientific papers, dissertations, ...
- architecture: plans, buildings, furniture, ...
- fine arts: pictures, drawings, photos, ...
- **computer progams**, apps:
 - e.g. Microsoft: Windows 98, NT, XP, Windows 7, MS Office, ...
 - or Apple: Mac OS, Leopard, iTunes, ...

Piracy is the biggest problem in some fields because copying of digital data is easy and lossless.



Science & IP

Scientific work results

- Authors want quick and early publication because of competition
- IP people want comprehensive descriptions and complete working examples to obtain broad and legally valid patents

Problem is the "novelty requirement" in the patent field

In brief: publication of an invention, even by the inventor, prior to filing the corresponding patent application "destroys the novelty", i.e. renders patenting impossible.



Science & IP



One solution to the above problem:

1. Securing priority

Before publication, filing the complete paper to be published as "provisional patent application", preferably at the US Patent and TM Office (USPTO).

2. Securing protection

Within 12 months from this filing date, preparing a standard/complete patent application, even with new matter, and filing it at the USPTO or any other IP office, claiming the priority of the above "US provisional".



Science & IP

Advantages of a US provisional

- easy to prepare and file
- establishes a priority date for 12 months
- permits further development of the invention
- is never published/open to public inspection (OPI), i.e. does not disclose the invention or state of art of the inventor/applicant
- two or more provisional applications can be associated to the same standard/complete patent application within 12 months from the first
- can be filed in any language (translation must be filed in due course)
- may be used as basis for a priority claim for filing EP and PCT applications
- inexpensive.



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Disadvantages of a US provisional

- the 12-months term cannot be extended
- further inventive features developed after filing a provisional are not disclosed until a standard/complete patent application is filed
- if the description is inadequate, the provisional will not serve its function of establishing a priority date for the standard/complete patent application
- it is not clear whether a provisional may be used as basis for a priority claim for filing applications in all countries under the Paris Convention.



Questions?

Thanks for your attention!

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