LIUC
Università Cattaneo

Innovation Management and New Product Development

Protecting Innovation:

An Overview of the Intellectual Property Rights

Fabiana Visentin

Our agenda for the next 2 sections

- Short introduction of the players (you and I)
- Introduction to the IP system
  - Main questions:
    - What is intellectual property exactly?
    - Why intellectual property has to be protected?
    - How can be intellectual property protected?
  - Main learning points:
    - IP system as an instrument to protect innovations
    - IP system as an instrument to map innovations

About me

ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE

YOU ARE | BY SCHOOL | ABOUT EPFL | Directory

EPFL > People@EPFL > Fabiana Visentin

français / English

FABIANA VISENTIN

Contact | Biography & current work | Main publications | Teaching & PhD

Share:

Contact

Postdoctoral Researcher

Chair in Economics and Management of Innovation

Phone	+41 21 69 30038
	WebCall
Postal address	EPFL CDM ITPP CEMI ODY 1 18 (Odyssea) Station 5 CH-1015 Lausanne
Office	ODY 1 18
In unit	CEMI CEMI

Lecturer

EDMT - Teaching

Phone	+41 21 69 30038
	WebCall
Office	ODY 1 18
In unit	EDMT-ENS

All postal addresses and positions | vCard

Personal Website

www.fabianavisentin.com

Fabiana Visentin
fabiana.visentin@epfl.ch
http://www.fabianavisentin.com/

FIELDS OF EXPERTISE

Economics of Innovation, Economics of Science, Applied Econometrics

fabiana.visentin@epfl.ch

About you

The crew

Bianchi	Giulia	1
Breda	Klaus	1
Giubilesi	Filippo	1
Kantereit	Luise	1
Cortese	Federico	2
Spada	Paolo	2
Tuinenga	Thomas	2
Emma		2
Maccari	Filippo	3
Pizzinato	Luca	3
Ponsone	Alessandro	3
Turcotte	Jean Manuel	3
Gijsman	Nerine	4
Schneider	Marion	4
Marcosan	Salvatore	5

Disclaimer

- The following slides build on the EPO teaching kit
- The original version is available at http://www.epo.org/learning-events/materials/kit/download.html

Question

Who invented

- the personal computer (PC)?
- the point-and-click graphical user interface (GUI)?
- the laser printer?
- the Ethernet?

Answer

- They were all invented by Xerox PARC

parc
A Xerox Company

home | search | contact | subscribe | sitemap | 日本語

NAVIGATION:

services
focus areas
how to work with us
case studies
clients & industry contributions

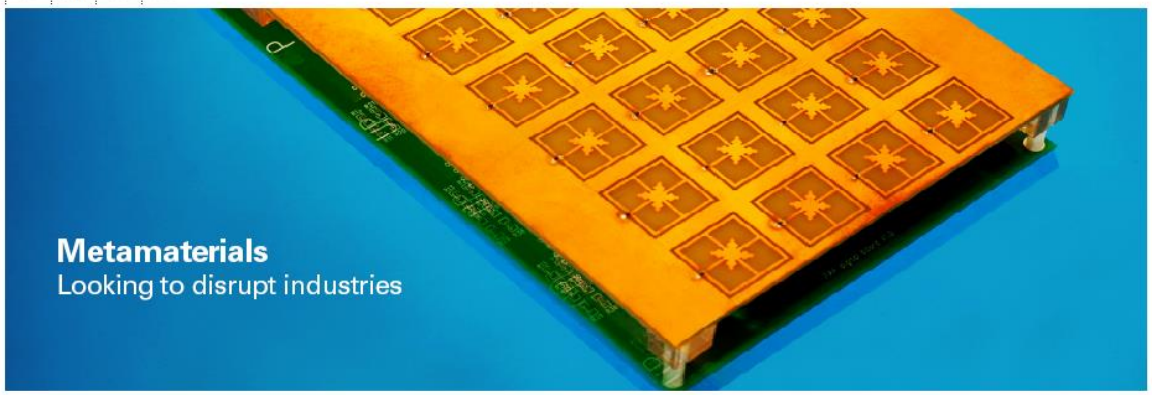
expertise
resources & publications
competencies
PARC blog

events
calendar
conferences & talks archive
PARC Forum speaker series

news room
in the news
releases
awards
press kit

company
about us
careers & culture
people

SPOTLIGHTS: 01 | 02 | 03 | 04



FEATURES:

Yunda Wang
Yunda Wang's background covers advanced manufacture, thermal systems, microelectromechanical systems (MEMS) technology and microsystem integration. Since joining PARC, he has developed an electrocaloric cooler by solving challenging manufacture and heat transfer issues.

Interview: Tolga Kurtoglu, CEO, Palo Alto Research Center (PARC)

Engineering and Technology Magazine says "There can't be much doubt that Tolga Kurtoglu has one of the most exciting jobs in the world of technology innovation. After seven years in the wings, the new chief executive has taken up the challenge of one of the brainiest buildings on Earth."

who we work with

P&G

view all people

read the interview

XEROX PARC

What did Xerox PARC do wrong?

- They didn’t patent the technologies they invented, and these technologies were later used by others with great success.

- They did not keep them secret.

What do all these companies have in common?

- Apple
- 3Com
- Adobe Systems
- Microsoft
- IBM
- Hewlett Packard

The ALTO by Xerox

Google

first pc

All Images Shopping Videos News More Settings Tools

About 1.120.000.000 results (1,07 seconds)

Personal computer history doesn't begin with **IBM** or **Microsoft**, although **Microsoft** was an early participant in the fledgling PC industry. The first personal computers, introduced in 1975, came as kits: The **MITS** Altair 8800, followed by the IMSAI 8080, an Altair clone. Apr 26, 2014

Personal Computer History: The First 25 Years | Low End Mac
lowendmac.com/2014/personal-computer-history-the-first-25-years/

Xerox 9700

HP LaserJet printer, 1984

» Virtual tour

Take this product for an interactive spin. The QuickTime plug-in is needed to view this presentation.

QuickTime 5 REQUIRED

» Six views

View this product from six static angles.

The HP LaserJet was the world's first desktop laser printer.

The HP LaserJet was the first desktop laser printer, introduced in 1984 at about $3,500. Nothing like it existed previously, and it created a totally new printer market—similar to what the HP-35 handheld calculator had done 12 years earlier. In December 2000, HP celebrated the shipment of the 50 millionth LaserJet printer.

In the 1980s, with the emergence of the personal computer market, owners of desktop computers wanted easy and direct access to their printers. Other manufacturers were producing two types of impact printers—dot-matrix or daisy-wheel units, both of which were noisy. In addition, dot-matrix printers had poor resolution, and daisy-wheels allowed only a limited number of fonts to be used. HP realized the field was wide open for product innovations.

What happens if you don’t protect your IP?

- You’re not protected!
- Others will be happy to capitalise on your ideas ... for free!

Back to basics: what do we mean by IP?

- Intellectual property is the product of imagination and creativity.

Where can IP be created?

- Intellectual property can be a product of the imagination in:
  - artistic fields
  - aesthetic fields
  - commercial fields
  - technical fields

Intellectual property and "ideas"

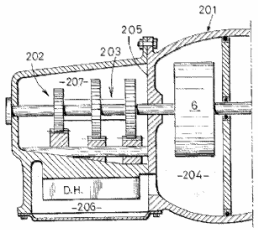
- Intellectual property is the result of "ideas".
- "Ideas" themselves cannot be protected.
- But if you can embody them (by recording, writing down, describing, etc.) they might become protectable.

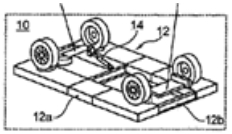
How can IP be protected?

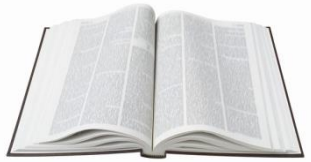
- Ideas can be protected by a whole range of IPRs.
- The type of IPR will be different depending on the idea.

The different types of IP (I)

Legal right	What for?	How?
Patents	New inventions	Application and examination
Utility models	New inventions	Application and registration
Copyright	Original creative or artistic forms	Exists automatically







The different types of IP (II)

Legal right	What for?	How?
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

One product - many IP rights

Trade marks
- NOKIA
- Product "208"
- Start-up tone

Copyright
- Software
- User manuals
- Ringtones
- Start-up tone
- Images

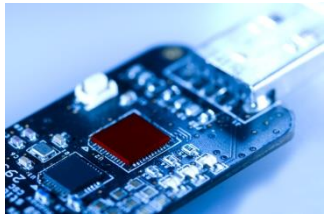
Patents and utility models
- Data-processing methods
- Operating system
- Operation of user interface

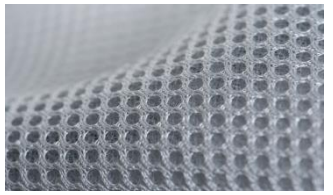
Designs
- Form of overall phone
- Arrangement and shape of buttons
- Position and shape of screen

Trade secrets
- Some technical know-how kept "in-house" and not published

The importance of intellectual property (I)

- IP is an essential business asset in the knowledge economy
  - Sandvik AB: innovative high-technology tools and steel technology
  - ARM Holdings: licenses its technology to microprocessor companies
- IP protects small innovative firms
  - W. L. Gore & Associates: GORE-TEX®
  - Dolby Laboratories: invented noise-reduction technology





The importance of intellectual property (II)

- IP is needed to enable the release of IP into the public domain under controlled conditions.
  - General Public License (GPL): Linux
  - Creative Commons License

- IP helps guarantee standards for public benefit by means of licensed trade marks.
  - Fairtrade International (FAIRTRADE)
  - Forest Stewardship Council (FSC)

The IP System

Innovators
make significant investments in developing new products

Competitors
benefit from their efforts

Can offer similar or identical products at a cheaper price

Heavy pressure
may drive the innovator out of business

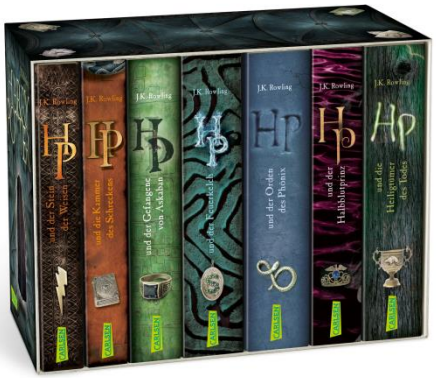
Get a free ride
on the back of the innovator's creativity and inventiveness

IP system
Rights over the use of inventions, designs, brands, literary and artistic works

Examples of valuable intellectual property

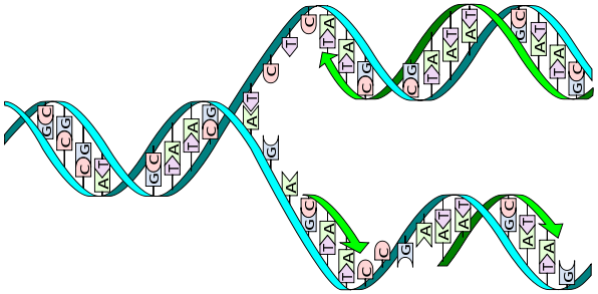
Coca-Cola®

Apple® iPod touch®



Harry Potter

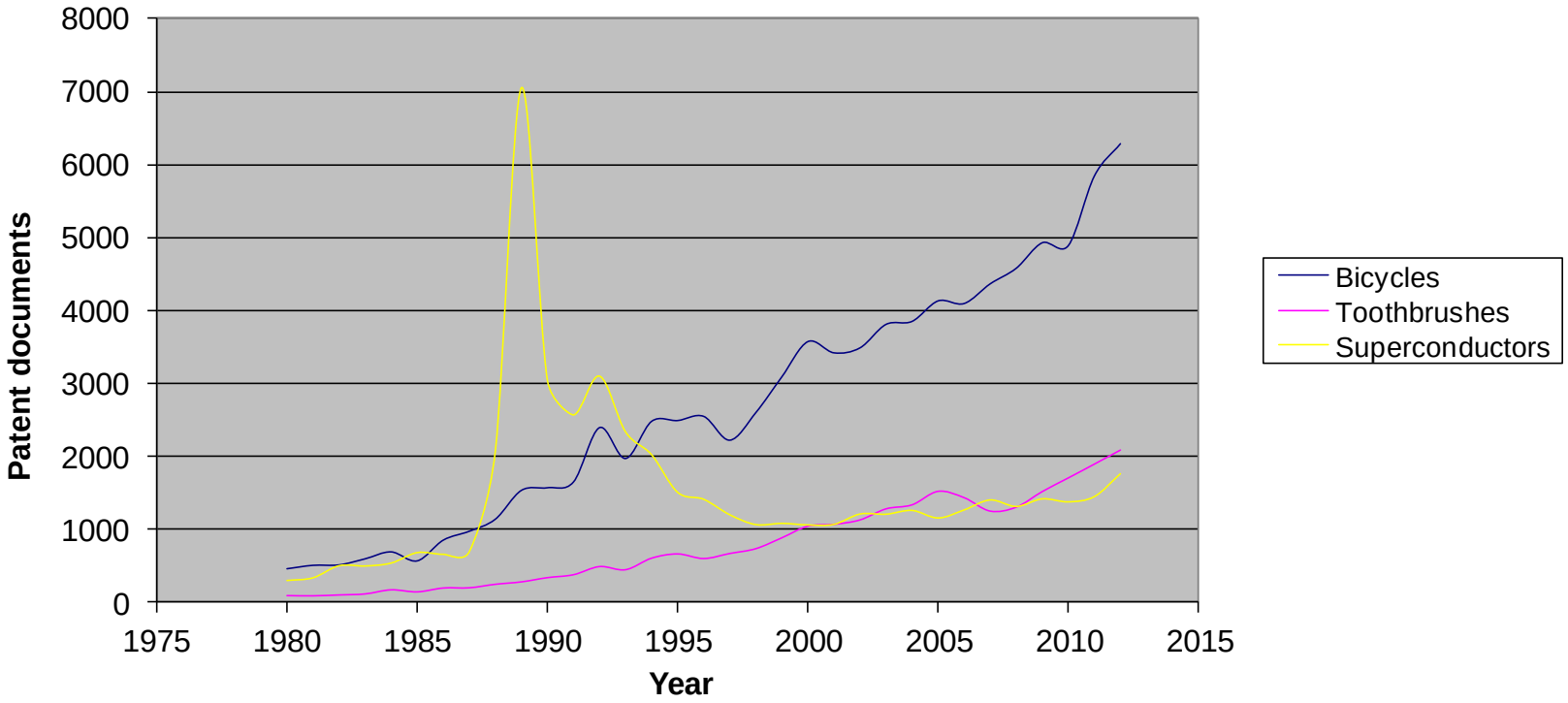
Polaroid® instant camera

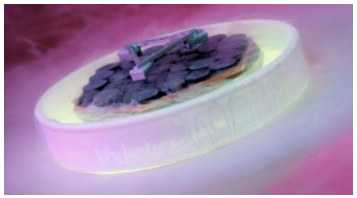


DNA copying process

PATENTS

Patents are all around us





The role of the patent system

- To encourage technological innovation
- To promote competition and investment
- To provide information on the latest technical developments
- To promote technology transfer

Patents as a social contract

Patent applicant

Reveal invention (disclosure)

Get exclusivity (patent)

Public

Rights conferred by patents

- Right to prevent others from making, using, offering for sale, selling or importing infringing products in the country where the patent was granted

  Exception: non-commercial purposes (private use, academic research)

- Right to assign, sell or license these rights

These rights belong to the patent holder.

What is a patent?

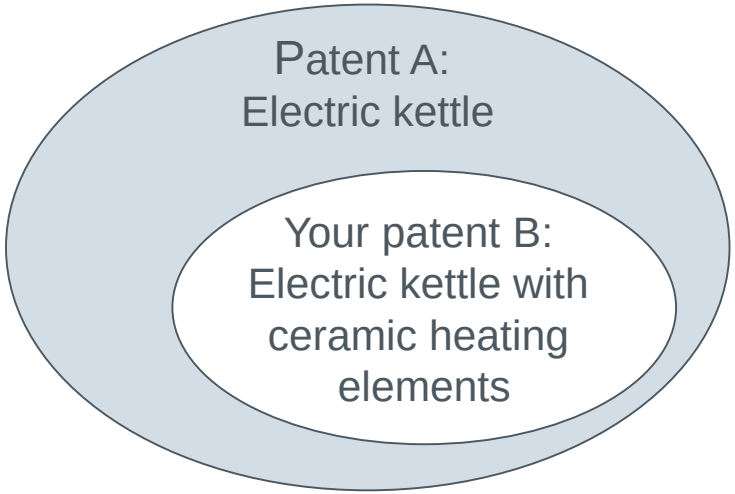
- Does a patent give you the right to exploit an invention?

  - NO!

- A patent is a negative right.
  It gives you the right to prevent others from exploiting the invention.
  It is not an enabling right.

- Patents owned by others may
  overlap or encompass your own patent.
  -> Seek a licence before commercialising

For example:



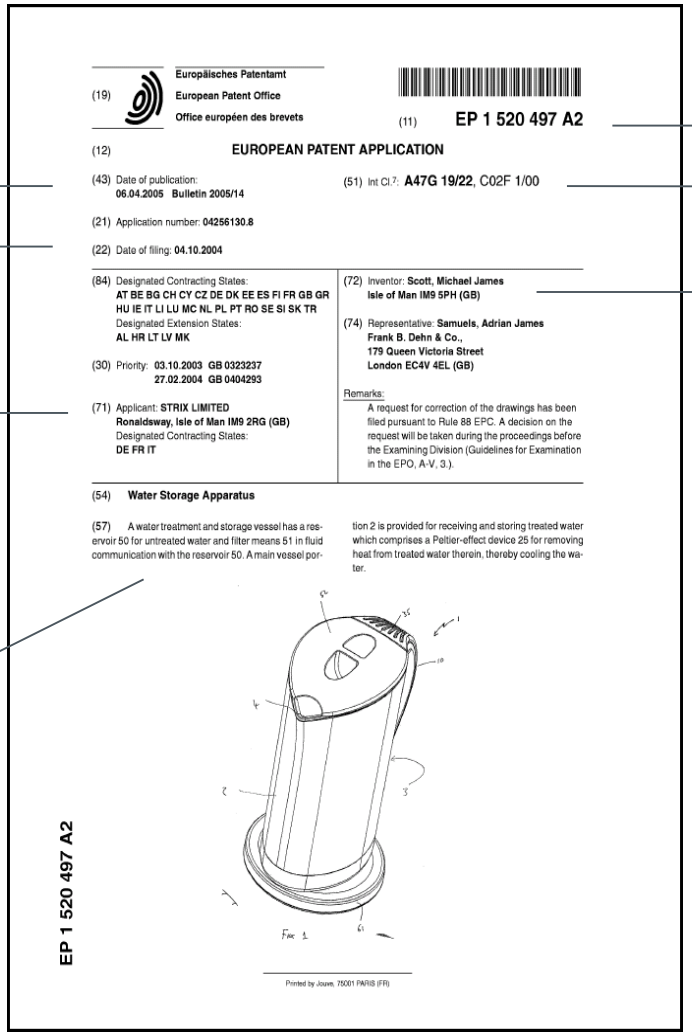
What do patent documents look like?

Date of publication

Date of filing

Applicant

Abstract



Europäisches Patentamt
European Patent Office
Office européen des brevets

(19)

(11) EP 1 520 497 A2

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
06.04.2005 Bulletin 2005/14

(51) Int Cl.?: A47G 19/22, C02F 1/00

(21) Application number: 04256130.8

(22) Date of filing: 04.10.2004

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

(30) Priority: 03.10.2003 GB 0323237
27.02.2004 GB 0404293

(71) Applicant: STRIX LIMITED
Ronaldsway, Isle of Man IM9 2RG (GB)
Designated Contracting States:
DE FR IT

(72) Inventor: Scott, Michael James
Isle of Man IM9 5PH (GB)

(74) Representative: Samuels, Adrian James
Frank B. Dehn & Co.,
179 Queen Victoria Street
London EC4V 4EL (GB)

Remarks:
A request for correction of the drawings has been filed pursuant to Rule 88 EPC. A decision on the request will be taken during the proceedings before the Examining Division (Guidelines for Examination in the EPO, A-V, 3.).

(54) Water Storage Apparatus

(57) A water treatment and storage vessel has a reservoir 50 for untreated water and filter means 51 in fluid communication with the reservoir 50. A main vessel portion 2 is provided for receiving and storing treated water which comprises a Peltier-effect device 25 for removing heat from treated water therein, thereby cooling the water.

EP 1 520 497 A2

Printed by Jouve, 75001 PARIS (FR)

Application number
Technical class
Inventor

Description

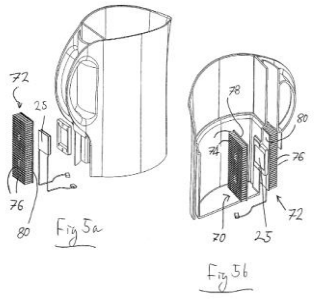
Claims

1. A portable water treatment and storage vessel comprising:

a reservoir for untreated water;
filter means in fluid communication with said reservoir; and
a main vessel portion for receiving and storing treated water;

wherein said main vessel portion comprises electro-thermal cooling means for removing heat from the treated water therein, thereby cooling the water.

Claim(s)



Drawing(s)

What does the description contain?

- Prior art
  - *teapot with one spout*
- Drawback of prior art
  - *time-consuming*
- Problem to be solved
  - *reduce filling time for multiple cups*
- Solution
  - *provide a second spout*
- Advantage of the invention
  - *filling time is reduced*

Fig.1.

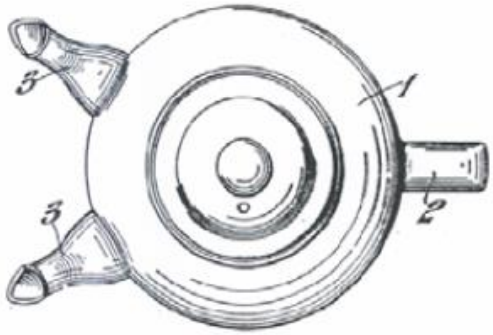
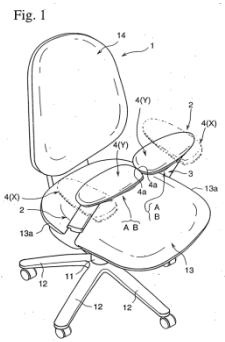


Fig.2.

What can and can't be patented

Patents protect technical inventions which solve technical problems:

- Products, devices, systems



- Chemical substances, pharmaceuticals
- Processes, methods, uses

For an invention to be patentable, it must usually be

- ✓ **new** to the world (i.e. not available to the public anywhere in the world)
- ✓ **inventive** (i.e. not an "obvious" solution), and
- ✓ susceptible of **industrial application**

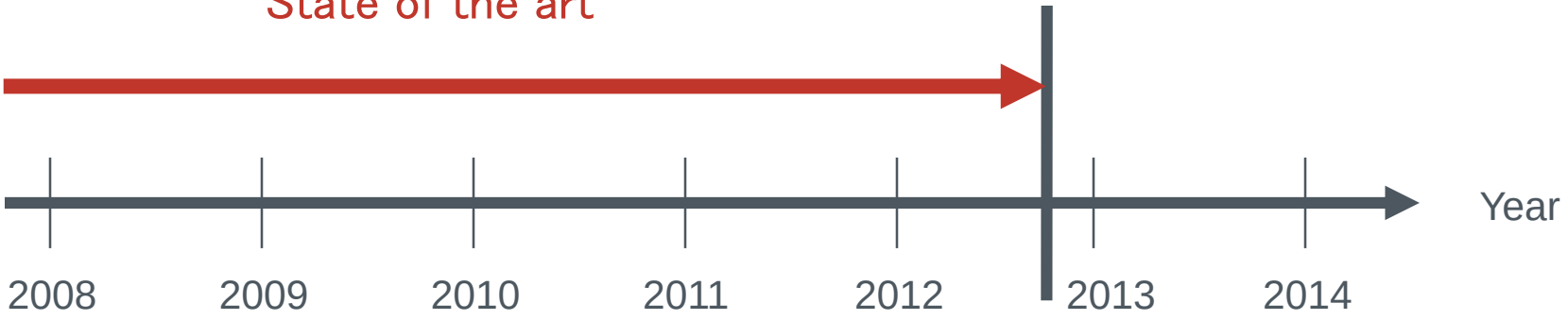
In most countries, patents are not granted for mere business methods or rules of games, or for methods of treatment, diagnostics and surgery of the human or animal body, or for inventions that are contrary to *ordre public* or morality, or for plant and animal varieties.

When is an invention "new"?

Keep your invention confidential until you have filed your application!

- When it is not part of the state of the art
- State of the art =
  everything made available to the public before the date of filing

Patent application



Do’s and don’ts for safeguarding novelty

Don’ts

- Do not publish any articles, press releases, conference presentations/ posters/ proceedings, lectures or blog posts, etc. before you file
- Do not sell any products incorporating the invention before you file

Do’s

- Sign a non-disclosure agreement (NDA)
- Seek professional advice at an early stage
- File before anyone else does!

When is an invention "inventive"?

- When it is not obvious to the person skilled in the art in view of the state of the art

- The person skilled in the art
  - is a skilled practitioner in the relevant technical field
  - has access to the entire state of the art
  - is aware of general technical knowledge
  - is capable of routine work

He knows EVERYTHING,
but has ZERO imagination!

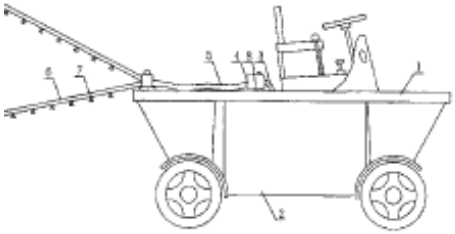
Assessing novelty

Claim: A pouring vessel comprising
(a) a compartment for liquids (1),
(b) a handle (2),
(c) a lid, and
(d) two spouts (5) extending from the compartment (1),
(e) whereby the tops of the two spouts are arranged at the same height.

Stage 1: Prior art

The prior art search revealed the following documents:

Document D1:
A teapot with one spout.



Document D2:
High efficiency distributor for fertilizer. Each rod has several nozzles for spraying liquid.

Document D3:
A filter handle with two spouts to be used with a coffee-maker.

Document D4:
An oil and vinegar bottle which reveals a second bottle inside. The two spouts are cleverly arranged to ensure the second bottle never drips while the first one is in use.

Assessing inventive step (I)

Stage 1

- Determine the closest prior art and common features:
  - (a) a compartment for liquids
  - (b) a handle
  - (c) a lid
  - (d) one spout

Stage 2: Problem

- Differences over D1:
  - two spouts instead of one
  - particular arrangement of the spouts

Fig.1.

- Drawback of prior art:
  - time-consuming

- Advantage/effect of the invention:
  - the time needed to fill multiple cups is reduced

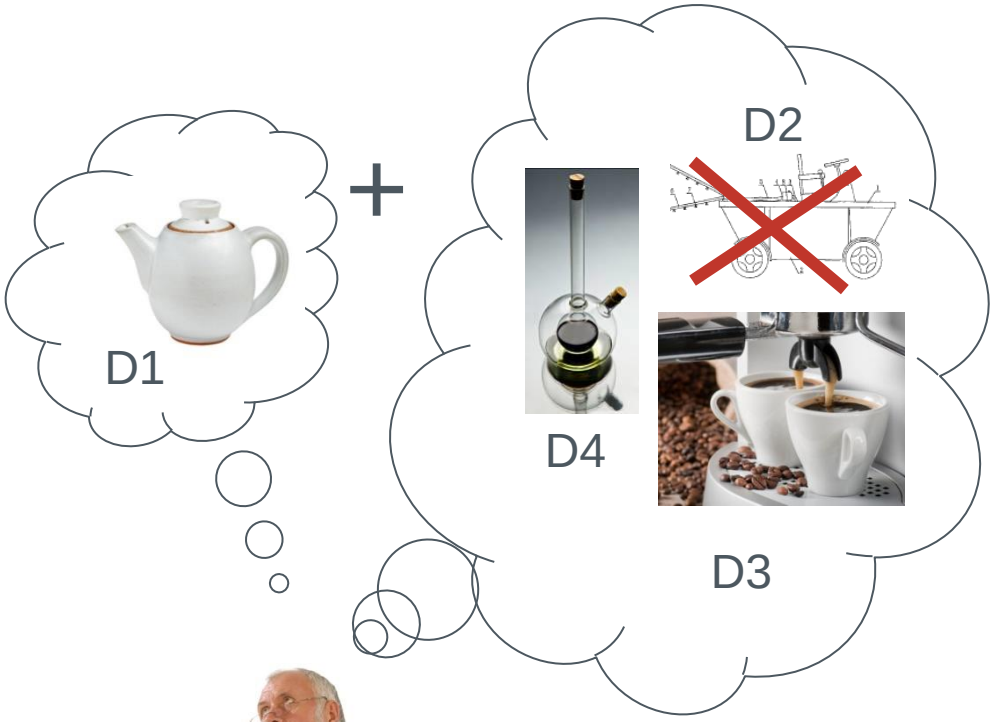
- Objective problem to solve:
  - how to modify the teapot of D1 to reduce the time needed to fill multiple cups

Assessing inventive step (II)

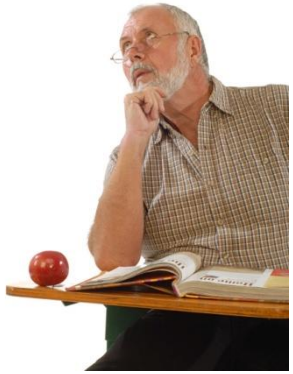
Stage 3: Solution

Is the claimed solution obvious in view of the prior art?

?



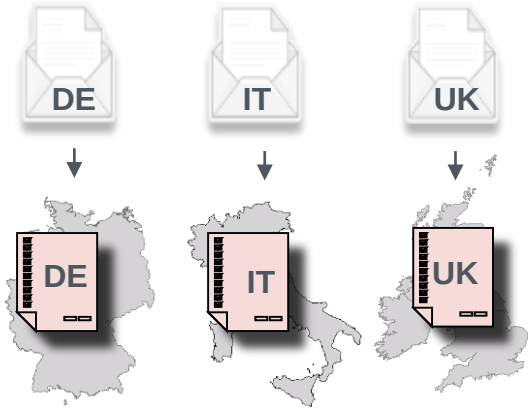
Objective problem for the skilled person: How to modify the teapot of D1 in order to reduce the time needed to fill multiple cups



How to obtain patent protection in Europe (options 1 and 2)

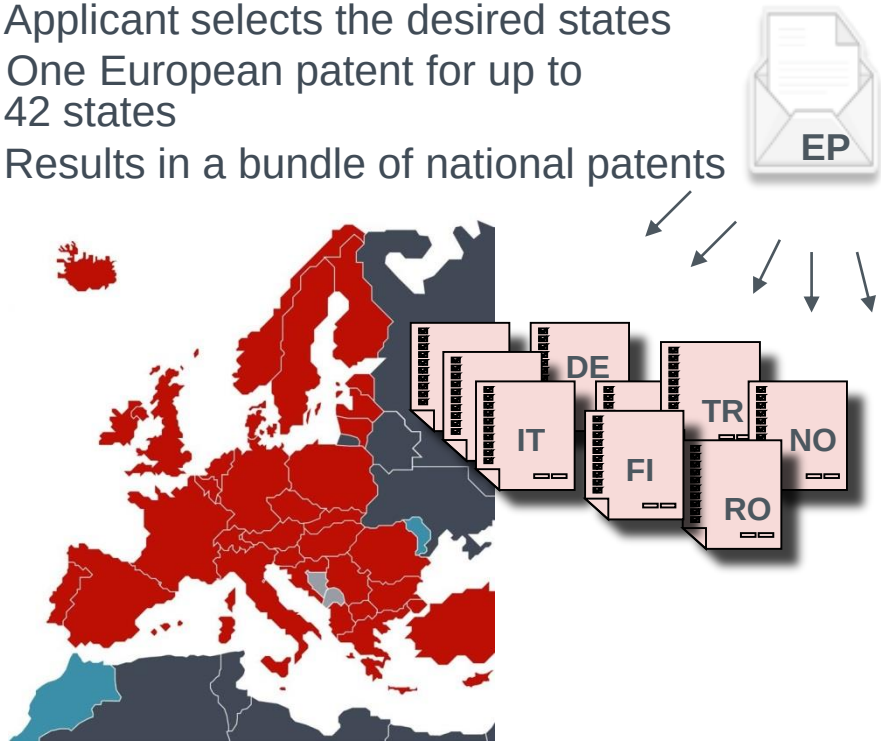
The national route

- Separate procedures for each state
- Procedures differ according to national law



The regional route: European Patent Convention

- One application filed at one office for up to 42 states
- One procedure
- Applicant selects the desired states
- One European patent for up to 42 states
- Results in a bundle of national patents



How to obtain patent protection in Europe (option 3)

The international route: Patent Cooperation Treaty (PCT)

- One single application for up to 148 countries*
- Harmonisation of formal standards (language, patent agent, fees)
- Search report and opinion on patentability
- After 30-31 months, decision by applicant on which countries to proceed in.

*December 2013

The grant procedure before the EPO

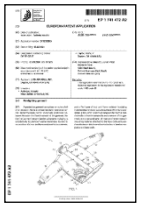
Withdraw?

Invention becomes visible to the public!

Validation at national offices

Application filed

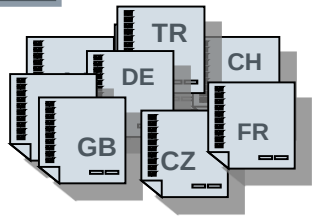
Search report



Publication

Examination

Grant



Opposition period expires

18 months

Approx. 4-5 years

9 months

What can happen after a European patent has been granted?

- Opposition
- Limitation/revocation
- Renewal fees
- Invalidity proceedings (before a court)
- Infringement proceedings (before a court)

What is infringement?

- Making use of a patented product or process without the consent of the patent owner
- Making, offering, putting on the market, importing or stocking the product
- Making, offering, putting on the market, importing or stocking a product directly obtained from a protected process
- Using a process or offering the process for use

- Infringement is determined by the national courts or by the Unified Patent Court (once it enters into force)
- What constitutes infringement in one country may differ from other countries
- Patent proprietors can claim damages and other remedies from alleged infringers

How is infringement determined? (I)

Claims

- Define the features of the invention = matter for which protection is sought
- Description and drawings are used to interpret the claims

Extent of protection

- Everything that is literally covered by the claims
- May also encompass equivalents

Infringement occurs when the infringing product possesses all the features of the claimed invention

Example:

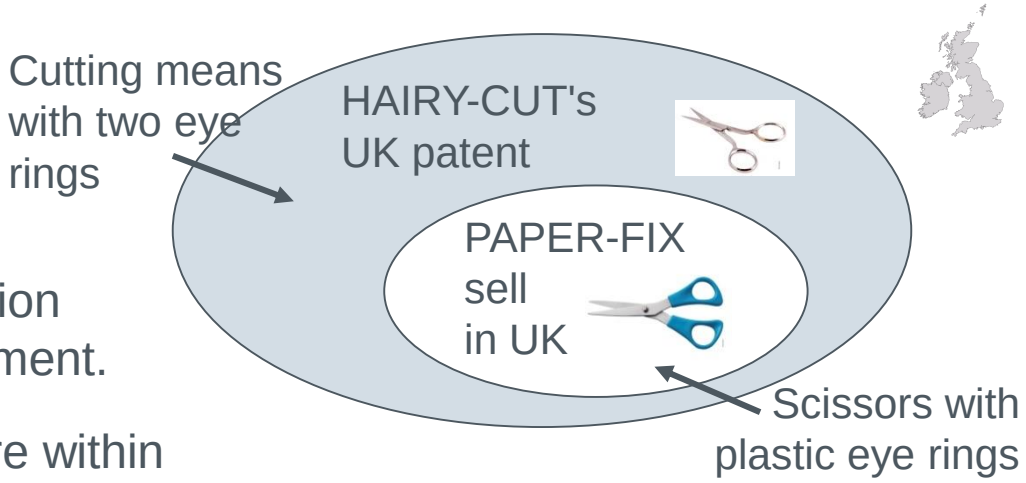
Are PAPER-FIX infringing HAIRY-CUT's patent?

PAPER-FIX produce scissors with eye rings covered by plastic in Italy and sell them in the UK

HAIRY-CUT have a UK patent claiming cutting means with two eye rings

How is infringement determined? (II)

Are PAPER-FIX infringing HAIRY-CUT's patent?



1. Generally speaking, production and sale are acts of infringement.

2. **UK:** Yes. The scissors are within the extent of protection.

3. **Italy:** No. HAIRY-CUT do not have a patent in Italy. PAPER-FIX and others can freely produce insulated scissors (provided no one else has a patent there → perform patent search!)

What about the garden shears imported into the UK by SHEAR-MAN?

UK: No. The shears do not have eye rings. They are outside the extent of protection.

Advantages and disadvantages of getting a patent

Advantages

- Exclusivity enables investment and higher returns on investment
- Strong, enforceable legal right
- Makes invention tradable (licence, sale)

Disadvantages

- Reveals invention to competitors (after 18 months)
- **Can be expensive**
- Grant may take 3-5 years
- Patent enforceable only after grant; proceedings can be costly

Alternatives to patenting

Disclose (publish) the information

- Cheap
- Prevents others from patenting the same invention

- Does not offer exclusivity
- Reveals the invention to competitors

Keep it a secret

- Cheap (but there is the cost of maintaining secrecy)
- Does not reveal the invention

- No protection against reverse-engineering/duplication of invention
- Difficult to enforce
- Secrets often leak quite fast

Do nothing

- No effort required

- Does not offer exclusivity
- Competitors will often learn details

What to consider before filing an application

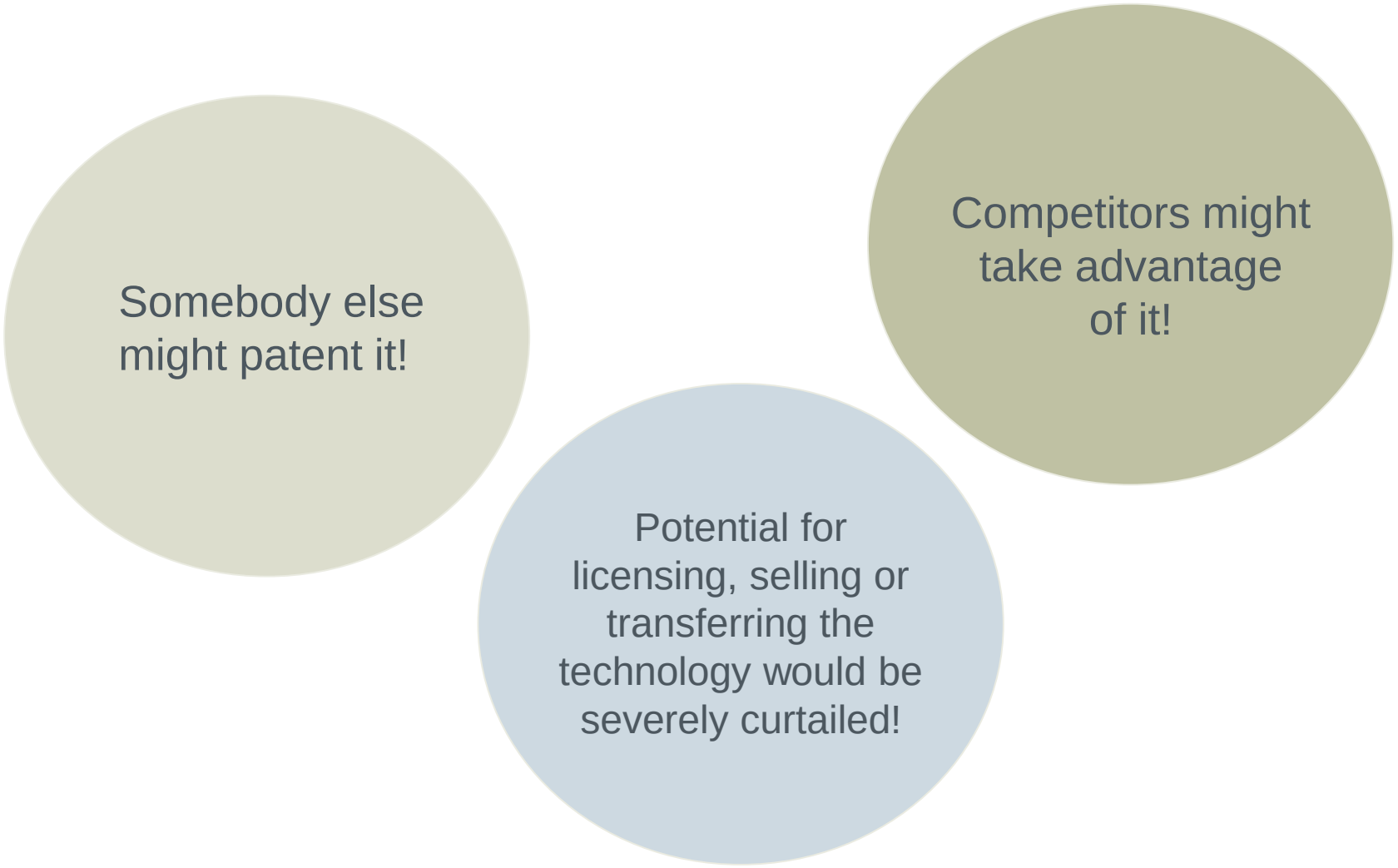
Should you patent your invention?
Cost/benefit analysis

Is your invention patentable?
- Conduct a prior art search
- Get advice on legal requirements

Have you clarified the rights to the invention
with the company, its employees and business partners?

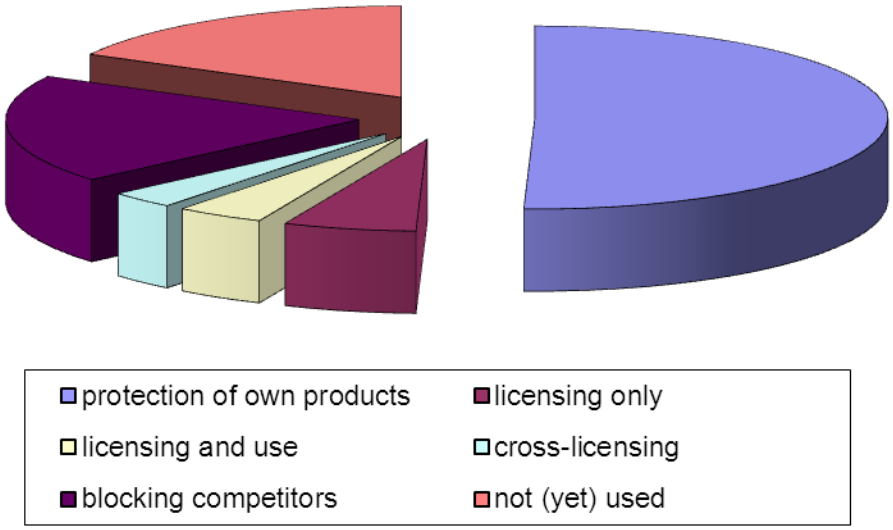
SEEK LEGAL ADVICE!

What might happen if I decide not to patent my invention?



How patents are used

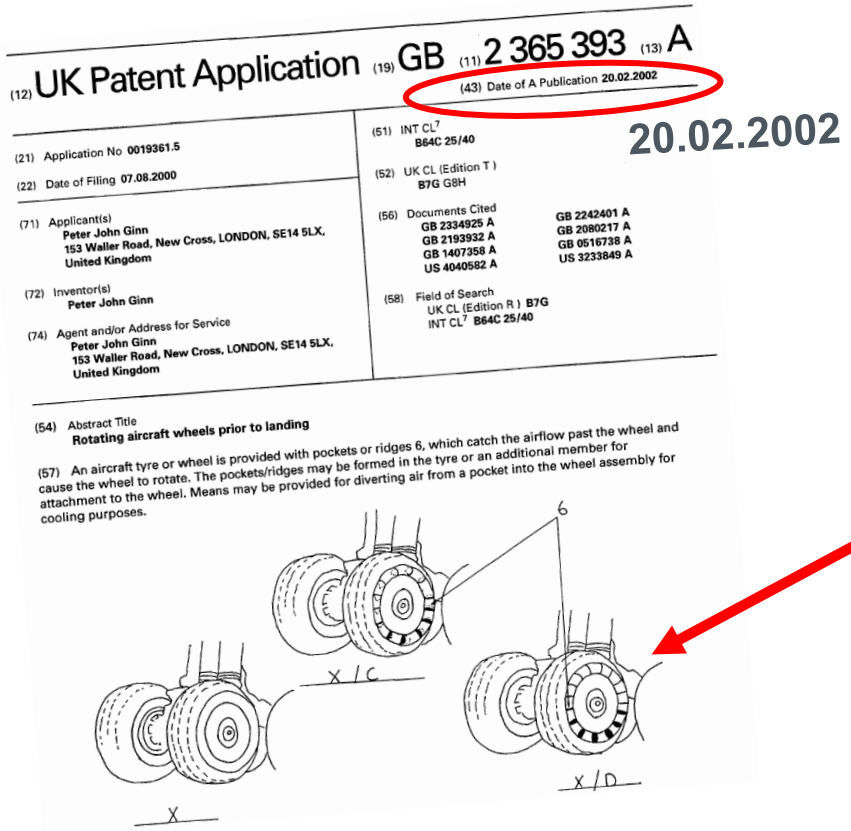
- Protecting products and processes
  - increasing turnover and profits
  - attracting investors
- Licensing
- Cross-licensing
- Blocking competitors
- Building reputation
- Not (yet) used



Survey of approx. 7 000 European patents in 2005

Re-inventing the wheel - literally

- 15-25% of all R&D efforts are wasted each year on inventions that have already been invented.
- Don't start your R&D until you have done a search!



(12) UK Patent Application (19) GB (11) 2 365 393 (13) A

(43) Date of A Publication 20.02.2002

20.02.2002

(21) Application No 0019361.5

(22) Date of Filing 07.08.2000

(71) Applicant(s)
Peter John Ginn
153 Waller Road, New Cross, LONDON, SE14 5LX,
United Kingdom

(72) Inventor(s)
Peter John Ginn

(74) Agent and/or Address for Service
Peter John Ginn
153 Waller Road, New Cross, LONDON, SE14 5LX,
United Kingdom

(51) INT CL[7]
B64C 25/40

(52) UK CL (Edition T)
B7G G8H

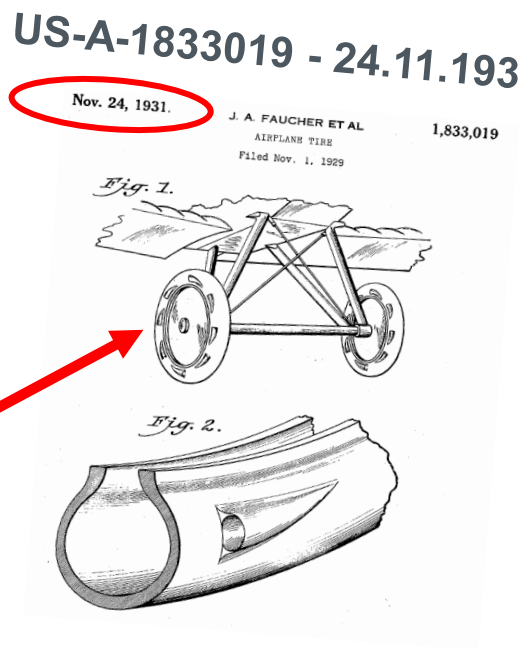
(56) Documents Cited
GB 2334925 A
GB 2193932 A
GB 1407358 A
US 4040582 A
GB 2242401 A
GB 2080217 A
GB 0516738 A
US 3233849 A

(58) Field of Search
UK CL (Edition R) B7G
INT CL[7] B64C 25/40

(54) Abstract Title
Rotating aircraft wheels prior to landing

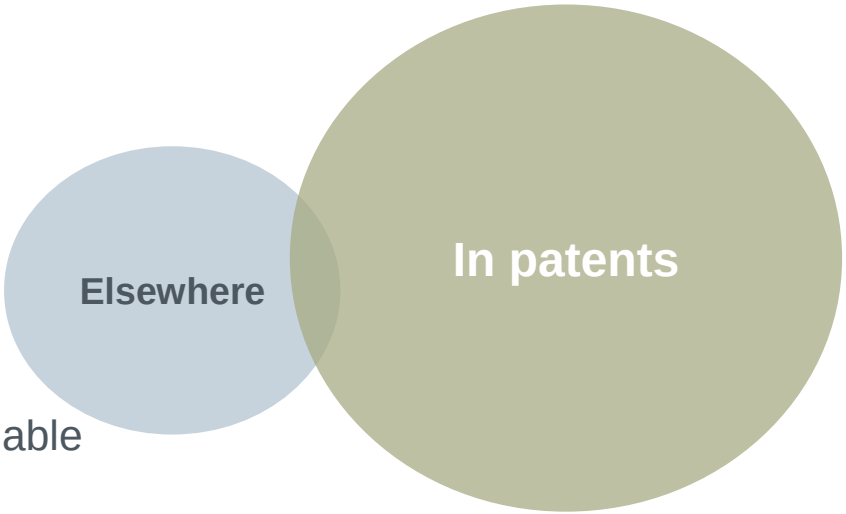
(57) An aircraft tyre or wheel is provided with pockets or ridges 6, which catch the airflow past the wheel and cause the wheel to rotate. The pockets/ridges may be formed in the tyre or an additional member for attachment to the wheel. Means may be provided for diverting air from a pocket into the wheel assembly for cooling purposes.

US-A-1833019 - 24.11.1931

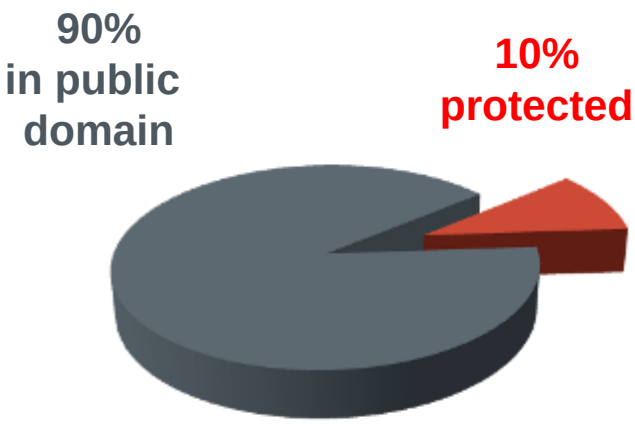


Solutions found in patent documents

Where do competitors publish their R&D?



Approximately 80% of the information which can be found in patents is not available anywhere else in comparable detail.

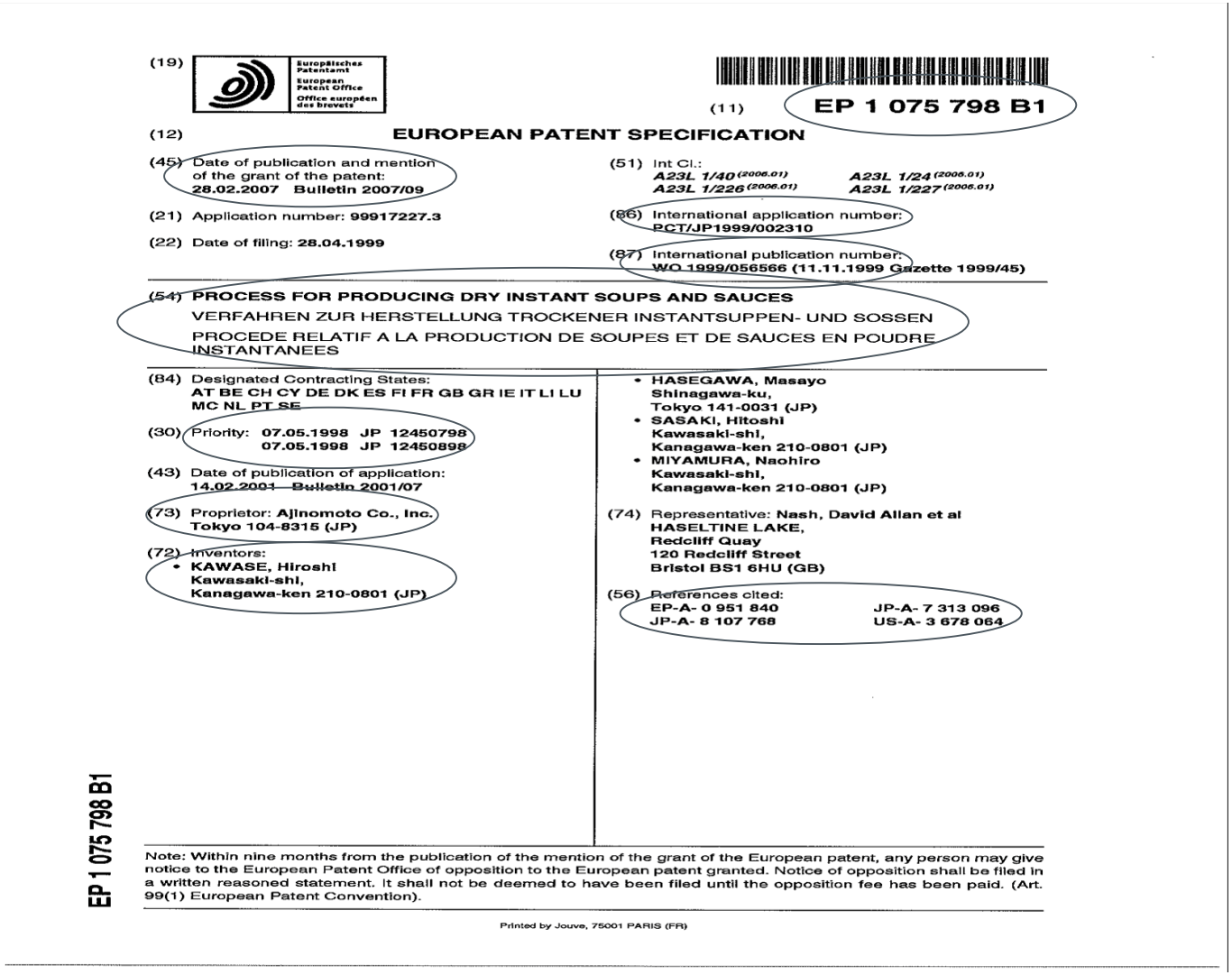


You can find many great solutions for free!

Reasons

- Applications rejected/withdrawn or patent invalidated
- Payment of renewal fees discontinued
- Patents have lapsed

Cover page of a typical patent document



(19) Europäisches Patentamt / European Patent Office / Office européen des brevets

(11) **EP 1 075 798 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:
28.02.2007 Bulletin 2007/09

(21) Application number: **99917227.3**

(22) Date of filing: **28.04.1999**

(51) Int Cl.:
A23L 1/40 *(2006.01)* ***A23L 1/24*** *(2006.01)*
A23L 1/226 *(2006.01)* ***A23L 1/227*** *(2006.01)*

(86) International application number:
PCT/JP1999/002310

(87) International publication number:
WO 1999/056566 (11.11.1999 Gazette 1999/45)

(54) **PROCESS FOR PRODUCING DRY INSTANT SOUPS AND SAUCES**
VERFAHREN ZUR HERSTELLUNG TROCKENER INSTANTSUPPEN- UND SOSSEN
PROCEDE RELATIF A LA PRODUCTION DE SOUPES ET DE SAUCES EN POUDRE INSTANTANEES

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

(30) Priority: **07.05.1998 JP 12450798**
07.05.1998 JP 12450898

(43) Date of publication of application:
14.02.2001 Bulletin 2001/07

(73) Proprietor: **Ajinomoto Co., Inc.**
Tokyo 104-8315 (JP)

(72) Inventors:
- **KAWASE, Hiroshi**
Kawasaki-shi,
Kanagawa-ken 210-0801 (JP)
- **HASEGAWA, Masayo**
Shinagawa-ku,
Tokyo 141-0031 (JP)
- **SASAKI, Hitoshi**
Kawasaki-shi,
Kanagawa-ken 210-0801 (JP)
- **MIYAMURA, Naohiro**
Kawasaki-shi,
Kanagawa-ken 210-0801 (JP)

(74) Representative: **Nash, David Allan et al**
HASELTINE LAKE,
Redcliff Quay
120 Redcliff Street
Bristol BS1 6HU (GB)

(56) References cited:
EP-A- 0 951 840 **JP-A- 7 313 096**
JP-A- 8 107 768 **US-A- 3 678 064**

EP 1 075 798 B1

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

Printed by Jouve, 75001 PARIS (FR)

The parts of a patent document (I)

- Title
- Abstract
  - Short summary of the invention
- Description
  - Field of the invention (the technical area to which the invention relates)
  - Background of the invention (details of the prior art)
  - Detailed description of the invention: how does the invention provide a technical solution to the technical problem?

The parts of a patent document (II)

- Description (cont.)
  - Brief description of the drawings
  - Detailed description of at least one way of carrying out the invention (embodiment of the invention)
- Claims
  - What is the scope of the invention/the protection sought?
- Drawings (if any)

More about the claims

- Two types of claim
  - Independent claims: the invention in its broadest scope
  - Dependent claims: any claim which includes all the features of any other claim

- Independent claim

  Claim 1 An A (product/process/apparatus/use) comprising

  B
  C
  D

  } Technical features of the claimed invention

- Dependent claim

  Claim 2 An A as claimed in claim 1, comprising

  E } Further particulars of claim 1

Requirements for patentability

The invention must be

- new/novel
  AND
- inventive
  AND
- industrially applicable

The test for novelty

- The test for novelty is an objective test.
- Are all the components of the claim of the invention known?
- Are they disclosed as the state of the art in existing products or publications?
- The disclosure can be anywhere in the world and in any form.
- The disclosure is relevant if it was made before the filing/priority date of the patent application concerned.
- All it takes to destroy novelty is for a single prior art item to disclose all the features of the claimed invention.

Two examples

- **Sugru**

- **Hövding airbag cycle helmet**

Sugru (I)

- Original idea from student Jane Delehanty for her master's degree in product design from the Royal College of Art.
- Problem: So many products have a limited lifetime and physical parts seem to break all the time.
- Solution: A silicone rubber which is hand-formable, sticks to almost anything, air cures at room temperature, becomes strong and durable even in extreme weather conditions and has a soft touch, but is "grippy".
- Called sugru, from the Irish "sugradh" meaning "play".

Sugru (II)

Advantages

- It is a pliable substance which quickly sets to form a firm repair, mount or grip.
- It has the mouldability of a high-temperature curing silicone but retains the adhesive properties and room-temperature curing of glues and sealants.

What does sugru look like?

History of the sugru patent

- Priority application filed on 30 November 2006
- PCT application filed on 29 November 2007
- PCT application published on 5 June 2008
- Entered regional phase in Europe, national phases in the US, UK and China
- European patent already granted

Exercise 1

Discussion

1. What do you think the inventive concept is?

2. What do you think the applicants claimed in their application?

- a product
- a process
- a composition
- all of the above

Claims at the PCT stage

There are ten claims in total.

- Claim 1: Independent claim directed to a composition
- Claims 2-10: Dependent claims
- Claim 9: Product claim of the composition of claims 1 to 6
- Claim 10: Process claim for producing a product according to claims 1 to 6

Claim 1 of the PCT application

"A one part room temperature curable silicone elastomer composition where the uncured composition has a Williams plasticity from 80 mm to 900 mm."

Is it novel?

- Priority date: 30 November 2006
- Test for novelty: Did any document/publication exist before 30 November 2006 which, when taken alone, discloses the invention claimed in the sugru application?
- First published search report states claims 1 to 10 may not be novel and/or inventive. Why?
- The examiner cited seven prior art documents:
  - EP0575863A dated **29 December 1993**
  - US5171773A dated **15 December 1992**
  - US4476155A dated **9 October 1984**
  - GB2288406A dated **18 October 1995**
  - EP0905195A dated **31 March 1999**
  - US2006/142472A1 dated **29 June 2006**
  - WO03/072267A dated **4 September 2003**

What did the applicants do next?

- Options
  - Abandon the patent application **or**
  - Request a preliminary examination (optional) **and/or**
  - Enter the national/regional phase
- Decision
  - To continue prosecution by entering the national/regional phase in Europe, the USA, the UK and China
- The claims had to be amended to ensure they were novel and inventive

Comparison between original PCT claim 1 and the amended EP version

International patent application	Amended granted EP claim
A: A one part room temperature curable silicone elastomer composition **B:** where the uncured composition has a Williams plasticity from 80 mm to 900 mm.	**A:** A one part room temperature curable silicone elastomer composition **B:** where the uncured composition has a Williams plasticity from 80 mm to 900 mm, and **C:** where the composition is a non-adhesive composition, the composition comprising: **D:** 20 to 60% by weight of a hydroxy-terminated poly(dimethylsiloxane) of viscosity greater than 350 000 mPA s (25° C); **E:** 3 to 66% by weight of a reinforcing filler; D: 10 to 60% by weight of a non-reinforcing filler; **F:** 2 to 6% by weight of a crosslinker and **G:** a suitable quantity of a curing catalyst.

Patent status of sugru as of March 2013

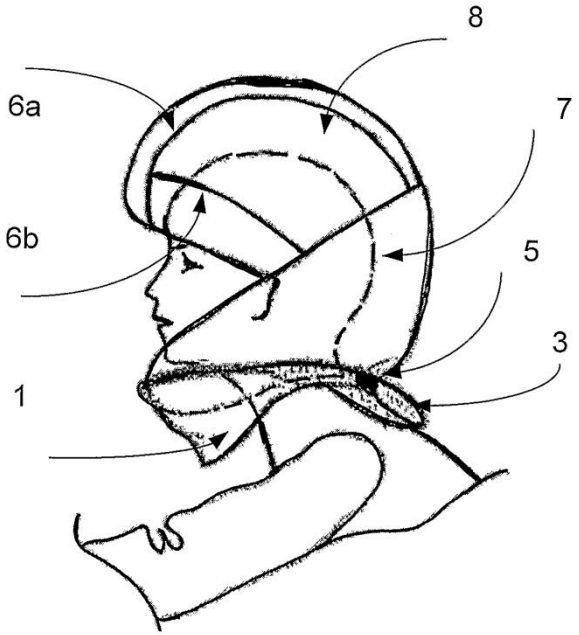
- Granted EP patent: validation in the designated contracting states is in progress

- Examination has been requested in the other countries

Example 2: Hövding airbag cycle helmet

- Swedish inventors Anna Haupt and Terese Alstin from Lund University
- Problem: Regardless of safety, people do not like to wear helmets while riding their bike as it ruins their hair-do and does not look cool
- Solution: Airbag helmet
- What is it? A collar containing an airbag with helium as the inflating agent and sensors including gyroscopes and accelerometers

What does the airbag helmet look like?



www.youtube.com/watch?v=WCd8qQv6Htw&feature=plcp

Exercise 2

- What do you think the inventive concept is in this case?
- What do you think the applicants claimed?
- How would you have structured a suitable claim?

What did Hövding claim in their PCT application?

- A system for protecting a portion of the body of a user in case of an abnormal movement, such as a fall or a collision (product claims 1 to 9)

- A method for protecting a head of a user in case of an abnormal movement, such as a fall or a collision (method claims 10 to 12)

Claim 1 of Hövding's PCT application

(A) A system for protecting a portion of the body of a user in case of an abnormal movement, such as a fall or a collision, wherein said system comprises

(B) an apparel and

(C) an airbag arranged therein: characterised in that said airbag comprises:

(D) a first part suitable for surrounding a neck portion and back head portion of a user after inflation; AND

(E) a second part suitable for forming a hood surrounding a skull of a user after inflation,

(F) said first part and second part being folded and arranged in said apparel before inflation.

Is it novel?

- Priority date: 26 October 2005
- Test for novelty: Did any document/publication exist before 26 October 2005 that, when taken alone, discloses the invention claimed in the patent application?
- International search report states claims 1 to 9 may not be novel and/or inventive. Why?
- The examiner cited three prior art documents:
  - DE1975451A1 dated 10 June 1999
  - DE3616890A1 dated 26 November 1987
  - WO0154523 dated 2 August 2001

What did the applicants do next?

- Options
  - Abandon the patent application **or**
  - Request a preliminary examination **and/or**
  - Enter the national/regional phase in various countries
- Decision
  - To continue prosecution by requesting optional international preliminary examination report (IPER issued)
- The claims had to be amended to ensure they were novel and inventive

Comparison between original PCT claim 1 and the amended claim

Original claim 1	Amended claim 1
A: A system for protecting a portion of the body of a user in case of an abnormal movement, such as a fall or a collision, wherein said system comprises B: an apparel and C: an airbag arranged therein: **characterized in that** said airbag **comprises**: **D:** a first part suitable for surrounding a neck portion an back head portion of a user after inflation; AND **E:** a second part suitable for forming a hood surrounding a skull of a user after inflation, **F:** said first part and second part being folded and arranged in said apparel before inflation.	**A:** A system for protecting a portion of the body of a user in case of an abnormal movement, such as a fall or a collision, wherein said system comprises B: an apparel and C: an airbag arranged therein: **characterized in that** said airbag **comprises**: **D:** a first part suitable for surrounding a neck portion an back head portion of a user after inflation; AND **E:** a second part suitable for forming a hood surrounding a skull of a user after inflation, **F:** said first part and second part being folded and arranged in said apparel before inflation*, and* ***G:*** *said first part being adapted for inflation prior to inflation of the second part.*

What did the examination report say and what happened next?

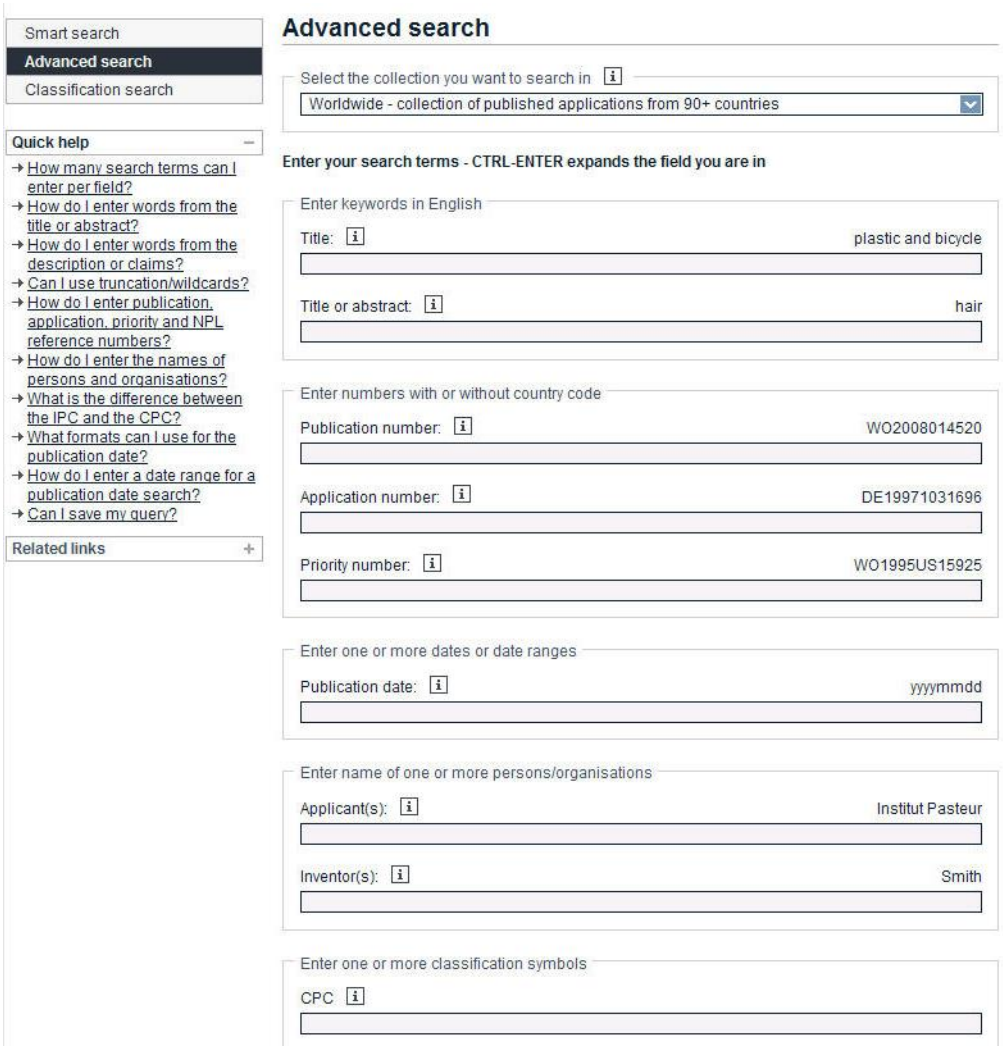
- Examination report: claims 1 to 12 are new and inventive.
- Consequences: entry into national/regional phase in various countries and regions, including China, Europe, Japan, Russia, Sweden and the United States.

DATABASES

What is a database?

- A database is a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means.

Searching for patents is easy



Free worldwide patent information at www.espacenet.com

Smart search

Advanced search

The front page

Europäisches Patentamt
European Patent Office
Office européen des brevets

Espacenet
Patent search

Deutsch English Français
Contact
Change country

About Espacenet Other EPO online services

Search | Result list | My patents list (0) | Query history | Settings | Help

Refine search → Results → EP1000000 (A1)

EP1000000 (A1)
- **Bibliographic data**
- Description
- Claims
- Mosaics
- Original document
- Cited documents
- Citing documents
- INPADOC legal status
- INPADOC patent family

Quick help
- What does A1, A2, A3 and B stand for after a European publication number?
- What happens if I click on "In my patents list"?
- What happens if I click on the "Register" button?
- Why are some sidebar options deactivated for certain documents?
- How can I bookmark this page?
- Why does a list of documents with the heading "Also published as" sometimes appear, and what are these documents?
- Why do I sometimes find the abstract of a corresponding document?
- What happens if I click on the red "patent translate" button?

Bibliographic data: EP1000000 (A1) — 2000-05-17

In my patents list | EP Register | Report data error | Print

Apparatus for manufacturing green bricks for the brick manufacturing industry

Page bookmark	EP1000000 (A1) - Apparatus for manufacturing green bricks for the brick manufacturing industry
Inventor(s):	KOSMAN WILHELMUS JACOBUS MARIA [NL] +
Applicant(s):	BOER BEHEER NIJMEGEN BV DE [NL] +
Classification:	- international: ***B28B1/29; B28B5/02; B28B7/00; H02P6/08;*** (IPC1-7): B28B1/29; B28B5/02; B28B7/00
	- cooperative: B28B1/29; B28B5/022; B28B7/0064; H02P6/08 → more
Application number:	EP 19990203729 19991108
Priority number(s):	NL19981010536 19981112
Also published as:	EP1000000 (B1) US6093011 (A) NL1010536 (C2) → AT232441 (T)

Abstract of EP1000000 (A1)

Translate this text into
Albanian
patenttranslate powered by EPO and Google

The invention relates to an apparatus (1) for manufacturing green bricks from clay for the brick manufacturing industry, comprising a circulating conveyor (3) carrying mould containers combined to mould container parts (4), a reservoir (5) for clay arranged above the mould containers, means for carrying clay out of the reservoir (5) into the mould containers, means (9) for pressing and trimming clay in the mould containers, means (11) for supplying and placing take-off plates for the green bricks (13) and means for discharging green bricks released from the mould containers, characterized in that the apparatus further comprises means (22) for moving the mould container parts (4) filled with green bricks such that a protruding edge is formed on at least one side of the green bricks.

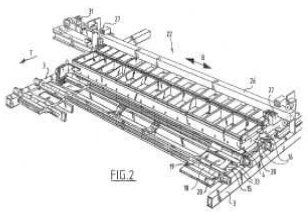


FIG.2

Sitemap Accessibility Legal notice Terms of use Last updated: 11.06.2014 Worldwide Database 5.8.20; 92p

EP 1 000 000 A1

(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 1 000 000 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
17.05.2000 Bulletin 2000/20

(51) Int. Cl.[7]: **B28B 5/02**, B28B 7/00, B28B 1/29

(21) Application number: **99203729.1**

(22) Date of filing: **08.11.1999**

(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: **12.11.1998 NL 1010536**

(71) Applicant: **Beheermaatschappij De Boer Nijmegen B.V.**
6541 BS Nijmegen (NL)

(72) Inventor: **Kosman, Wilhelmus Jacobus Maria**
6562 DA Groesbeek (NL)

(74) Representative:
Schumann, Bernard Herman Johan et al
Arnold & Siedsma,
Advocaten en Octrooigemachtigden,
Sweelinckplein 1
2517 GK Den Haag (NL)

(54) **Apparatus for manufacturing green bricks for the brick manufacturing industry**

(57) The invention relates to an apparatus (1) for manufacturing green bricks from clay for the brick manufacturing industry, comprising a circulating conveyor (3) carrying mould containers combined to mould container parts (4), a reservoir (5) for clay arranged above the mould containers, means for carrying clay out of the reservoir (5) into the mould containers, means (9) for pressing and trimming clay in the mould containers, means (11) for supplying and placing take-off plates for the green bricks (13) and means for discharging green bricks released from the mould containers, characterized in that the apparatus further comprises means (22) for moving the mould container parts (4) filled with green bricks such that a protruding edge is formed on at least one side of the green bricks.

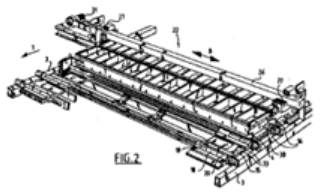


FIG.2

The description

Europäisches Patentamt
European Patent Office
Office européen des brevets

Espacenet
Patent search

Deutsch English Français
Contact
Change country

About Espacenet Other EPO online services

Search | Result list | My patents list (0) | Query history | Settings | Help

Refine search → Results → EP1000000 (A1)

EP1000000 (A1)
- Bibliographic data
- **Description**
- Claims
- Mosaics
- Original document
- Cited documents
- Citing documents
- INPADOC legal status
- INPADOC patent family

Quick help
- What happens if I click on "In my patents list"?
- What happens if I click on the "EP Register" button?
- What happens if I click on the red "patent translate" button?
- Why is the description sometimes in French or German or another language altogether?
- How can I search in the text of the description?
- Can I download the complete text?
- How can I view chemical structures in the full text?

Description: EP1000000 (A1) — 2000-05-17

In my patents list | EP Register | Report data error | Print

Apparatus for manufacturing green bricks for the brick manufacturing industry

Description of EP1000000 (A1)

Translate this text into
Danish
patenttranslate powered by EPO and Google

The EPO does not accept any responsibility for the accuracy of data and information originating from other authorities than the EPO; in particular, the EPO does not guarantee that they are complete, up-to-date or fit for specific purposes.

[0001] The invention relates to an apparatus for manufacturing green bricks from clay for the brick manufacturing industry, comprising a circulating conveyor carrying mould containers combined to mould container parts, a reservoir for clay arranged above the mould containers, means for carrying clay out of the reservoir into the mould containers, means for pressing and trimming clay in the mould containers, means for supplying and placing take-off plates for the green bricks and means for discharging green bricks released from the mould containers. Such an apparatus is known in the field and is for instance described in the patent 1000186 of applicant. The known apparatus is extremely suitable for automated production of large numbers of green bricks for the brick manufacturing industry. The bricks fired from these green bricks have a substantially smooth, uniform appearance.

[0002] A recent demand has developed on the market for bricks which appear as if they have been manufactured according to traditional methods.

[0003] The invention has for its object to adapt the known apparatus such that it can produce in automated manner large numbers of green bricks with a traditional appearance.

[0004] For this purpose the apparatus according to the invention has the feature that the apparatus further comprises means for moving the mould container parts filled with green bricks such that a protruding edge is formed on at least one side of the green bricks.

[0005] The bricks fired from the green bricks produced using the apparatus according to the invention impart beautiful shadow effects to the wall into which they have been built when the sun shines thereon. This aesthetic effect is an important commercial advantage.

[0006] The edge-forming means are preferably adapted to move the mould container parts repeatedly for a certain period. Repetition a number of times, for instance three times, is found in practice to be sufficient to obtain the intended effect.

[0007] In a practical preferred embodiment the edge-forming means are adapted to move the mould container parts substantially transversely of the transporting direction.

[0008] In a further preferred embodiment the edge-forming means comprise a frame which is adapted to engage individually on a mould container part. This preferred embodiment has the significant advantage that the edge-forming means can act on one mould container part while another mould container part undergoes another operation and is for instance filled with clay. The edge-forming means can therefore be added to the known apparatus without this affecting the production time.

Description

[0001] The invention relates to an apparatus for manufacturing green bricks from clay for the brick manufacturing industry, comprising a circulating conveyor carrying mould containers combined to mould container parts, a reservoir for clay arranged above the mould containers, means for carrying clay out of the reservoir into the mould containers, means for pressing and trimming clay in the mould containers, means for supplying and placing take-off plates for the green bricks and means for discharging green bricks released from the mould containers. Such an apparatus is known in the field and is for instance described in the patent 1000186 of applicant. The known apparatus is extremely suitable for automated production of large numbers of green bricks for the brick manufacturing industry. The bricks fired from these green bricks have a substantially smooth, uniform appearance.

[0002] A recent demand has developed on the market for bricks which appear as if they have been manufactured according to traditional methods.

[0003] The invention has for its object to adapt the known apparatus such that it can produce in automated manner large numbers of green bricks with a traditional appearance.

[0004] For this purpose the apparatus according to the invention has the feature that the apparatus further comprises means for moving the mould container parts filled with green bricks such that a protruding edge is formed on at least one side of the green bricks.

[0005] The bricks fired from the green bricks produced using the apparatus according to the invention impart beautiful shadow effects to the wall into which they have been built when the sun shines thereon. This aesthetic effect is an important commercial advantage.

[0006] The edge-forming means are preferably adapted to move the mould container parts repeatedly for a certain period. Repetition a number of times, for instance three times, is found in practice to be sufficient to obtain the intended effect.

[0007] In a practical preferred embodiment the edge-forming means are adapted to move the mould container parts substantially transversely of the transporting direction.

[0008] In a further preferred embodiment the edge-forming means comprise a frame which is adapted to engage individually on a mould container part. This preferred embodiment has the significant advantage that the edge-forming means can act on one mould container part while another mould container part undergoes another operation and is for instance filled with clay. The edge-forming means can therefore be added to the known apparatus without this affecting the production time.

[0009] In yet another preferred embodiment the frame spans the mould container part and is provided on both sides with stop members which are situated during operation at the location of the side walls of the mould container part. An exceptionally compact embodiment of the invention is hereby realized which utilizes the available space economically and can be arranged without difficulty on the known apparatus.

[0010] In order to prevent unnecessary damage to the mould container parts, these latter are provided on their side walls with stop surfaces, preferably of plastic. In preference the stop members of the frame of the edge-forming means are also provided with these, preferably plastic, stop surfaces.

[0011] The invention is described in more detail hereinbelow with reference to the drawing in which:

figure 1 shows schematically a preferred embodiment of the apparatus according to the invention;

figure 2 shows in more detail a perspective view of a part of the apparatus of figure 1 with the edge-forming means therein;

figure 3 shows the edge-forming means of figure 2 in even more detail;

figure 4 is a perspective view of a first preferred embodiment of a mould container part which is suitable for use in the apparatus according to the invention;

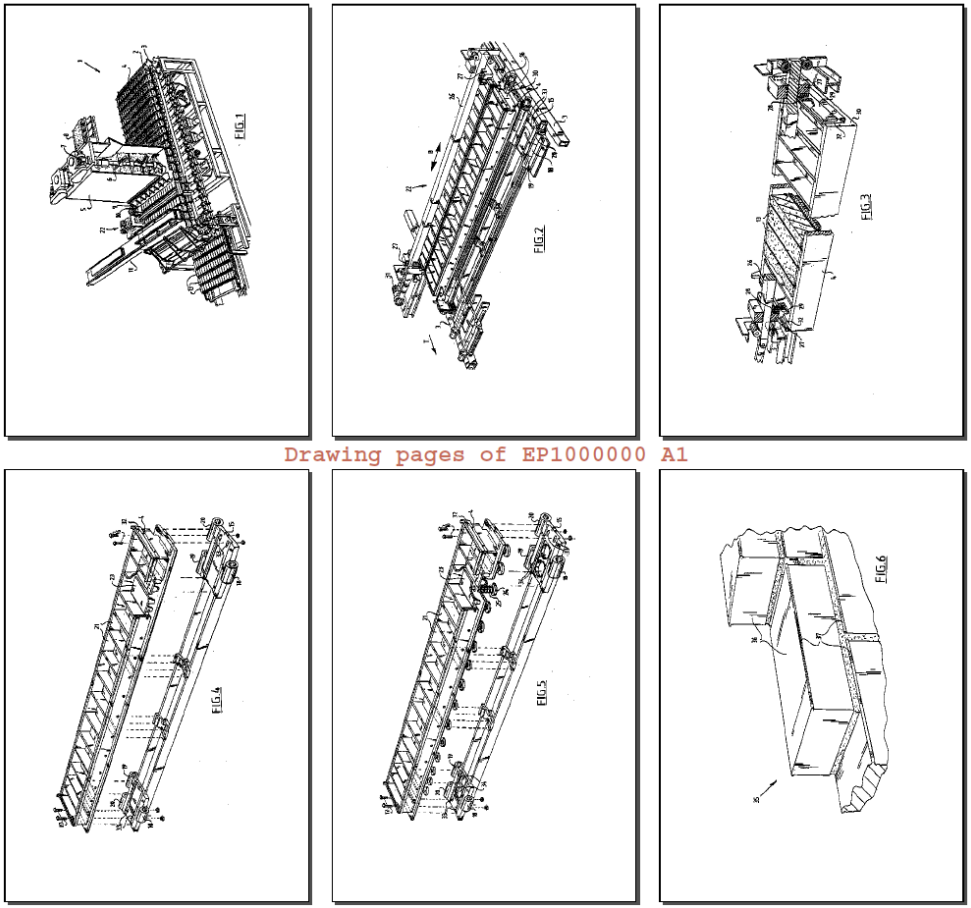
figure 5 is a perspective view of a second preferred embodiment of a mould container part; and

figure 6 shows schematically a part of a wall which has been built using bricks provided with an edge and fired from the green bricks manufactured using the apparatus according to the invention.

[0012] Like components are provided in the figures with like reference numerals.

[0013] Figure 1 shows a preferred embodiment of an apparatus for manufacturing green bricks for the brick manufacturing industry according to the invention. Apparatus 1 comprises a conveyor 3. Mould containers combined to a unit are placed in the form of a mould container part 4 on the conveyor. The mould container parts fit closely

The drawings



Drawing pages of EP1000000 A1

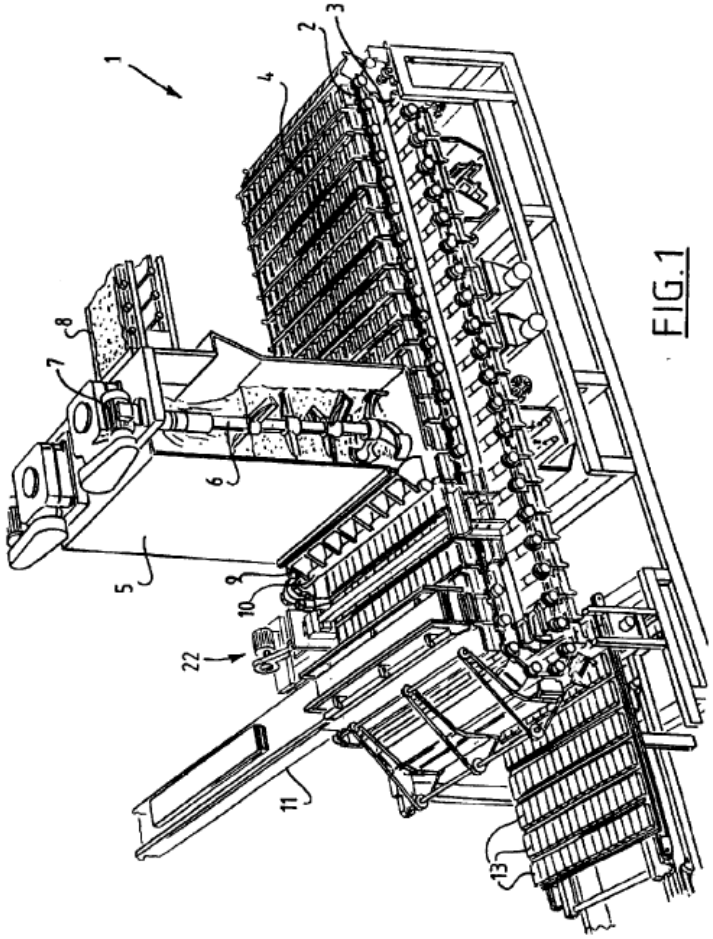
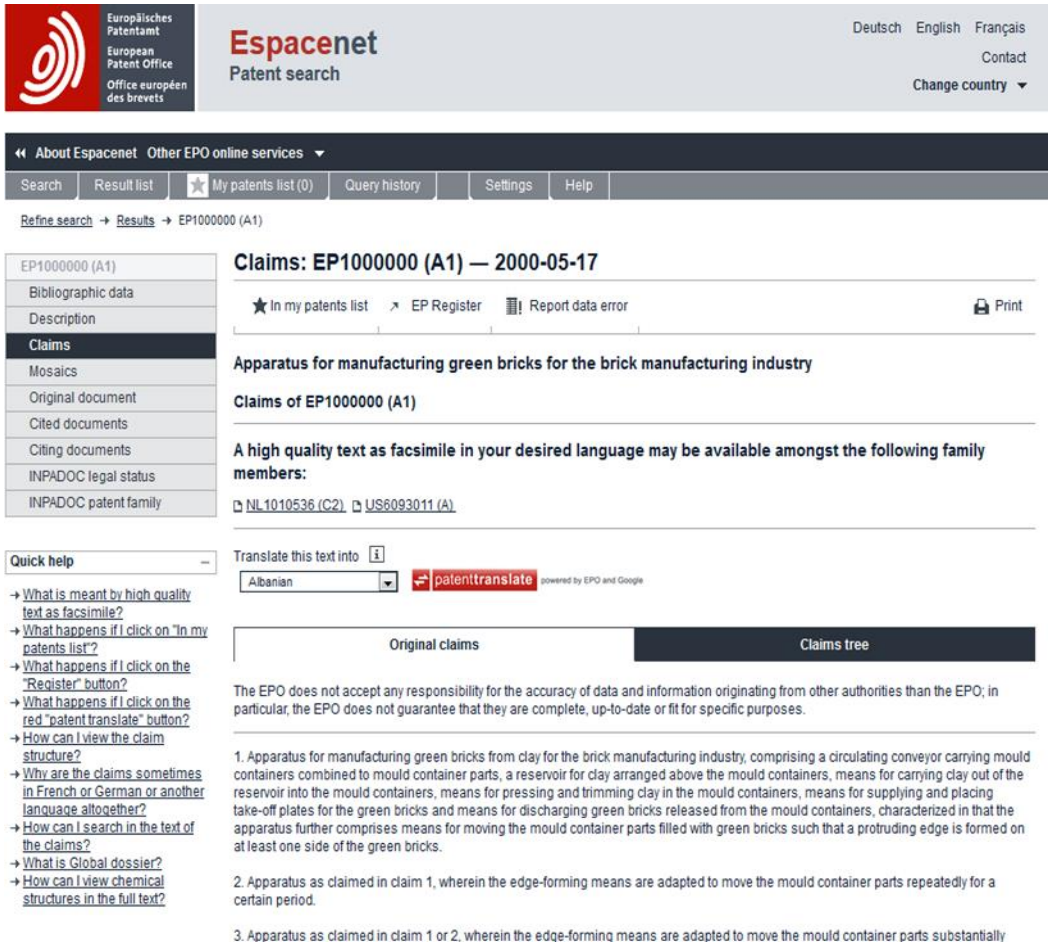


FIG.1

The claims



Europäisches Patentamt
European Patent Office
Office européen des brevets

Espacenet
Patent search

Deutsch English Français
Contact
Change country

About Espacenet Other EPO online services

Search | Result list | My patents list (0) | Query history | Settings | Help

Refine search → Results → EP1000000 (A1)

EP1000000 (A1)
- Bibliographic data
- Description
- **Claims**
- Mosaics
- Original document
- Cited documents
- Citing documents
- INPADOC legal status
- INPADOC patent family

Quick help
- What is meant by high quality text as facsimile?
- What happens if I click on "In my patents list"?
- What happens if I click on the "Register" button?
- What happens if I click on the red "patent translate" button?
- How can I view the claim structure?
- Why are the claims sometimes in French or German or another language altogether?
- How can I search in the text of the claims?
- What is Global dossier?
- How can I view chemical structures in the full text?

Claims: EP1000000 (A1) — 2000-05-17

In my patents list | EP Register | Report data error | Print

Apparatus for manufacturing green bricks for the brick manufacturing industry

Claims of EP1000000 (A1)

A high quality text as facsimile in your desired language may be available amongst the following family members:

NL1010536 (C2) US6093011 (A)

Translate this text into
Albanian
patenttranslate powered by EPO and Google

Original claims | Claims tree

The EPO does not accept any responsibility for the accuracy of data and information originating from other authorities than the EPO; in particular, the EPO does not guarantee that they are complete, up-to-date or fit for specific purposes.

1. Apparatus for manufacturing green bricks from clay for the brick manufacturing industry, comprising a circulating conveyor carrying mould containers combined to mould container parts, a reservoir for clay arranged above the mould containers, means for carrying clay out of the reservoir into the mould containers, means for pressing and trimming clay in the mould containers, means for supplying and placing take-off plates for the green bricks and means for discharging green bricks released from the mould containers, characterized in that the apparatus further comprises means for moving the mould container parts filled with green bricks such that a protruding edge is formed on at least one side of the green bricks.

2. Apparatus as claimed in claim 1, wherein the edge-forming means are adapted to move the mould container parts repeatedly for a certain period.

3. Apparatus as claimed in claim 1 or 2, wherein the edge-forming means are adapted to move the mould container parts substantially

circulating conveyor carrying mould containers combined to mould container parts, a reservoir for clay arranged above the mould containers, means for carrying clay out of the reservoir into the mould containers, means for pressing and trimming clay in the mould containers, means for supplying and placing take-off plates for the green bricks and means for discharging green bricks released from the mould containers, **characterized in that** the apparatus further comprises means for moving the mould container parts filled with green bricks such that a protruding edge is formed on at least one side of the green bricks.

2. Apparatus as claimed in claim 1, wherein the edge-forming means are adapted to move the mould container parts repeatedly for a certain period.

3. Apparatus as claimed in claim 1 or 2, wherein the edge-forming means are adapted to move the mould container parts substantially transversely of the transporting direction.

4. Apparatus as claimed in any of the foregoing claims, wherein the edge-forming means comprise a frame which is adapted to engage individually on a mould container part.

5. Apparatus as claimed in claim 4, wherein the frame spans the mould container part and is provided on both sides with stop members which are situated during operation at the location of the side walls of the mould container part.

6. Apparatus as claimed in claim 5, wherein the stop members are provided with stop surfaces which preferably comprise plastic.

7. Apparatus as claimed in claim 5 or 6, wherein the mould container parts are provided on their side walls with stop surfaces which preferably comprise plastic.

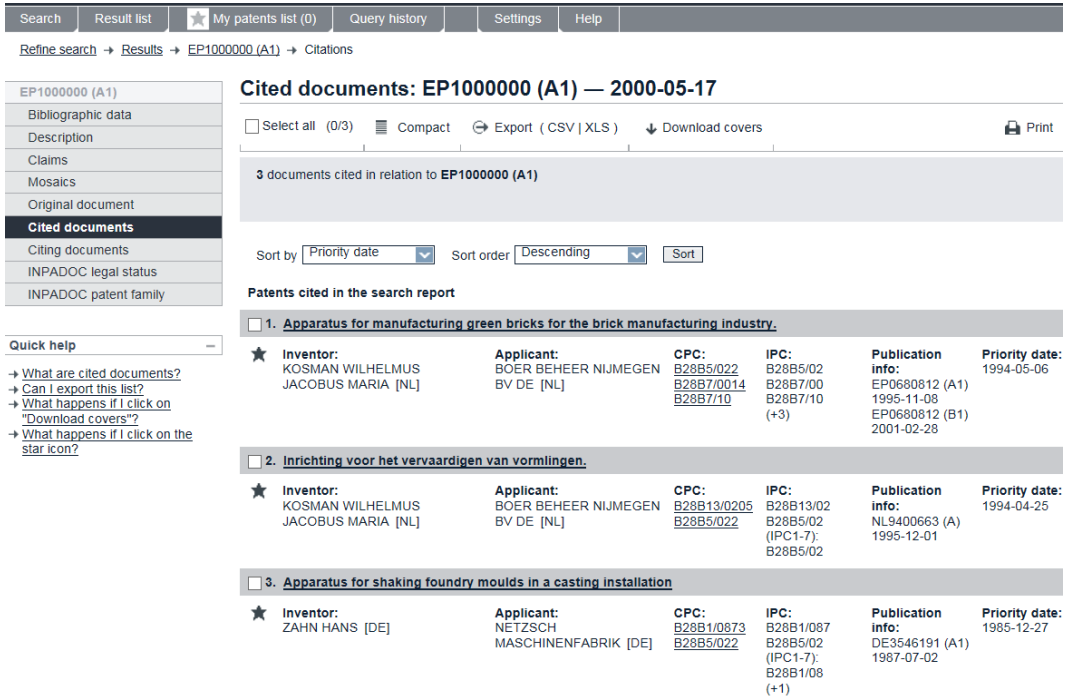
8. Apparatus as claimed in claim 4, 5, 6 or 7, wherein the edge-forming means comprise an eccentric drive for the frame.

9. Apparatus as claimed in any of the foregoing claims, wherein each mould container part is provided with a number of spacer members for supporting the take-off plates at a distance above the green bricks.

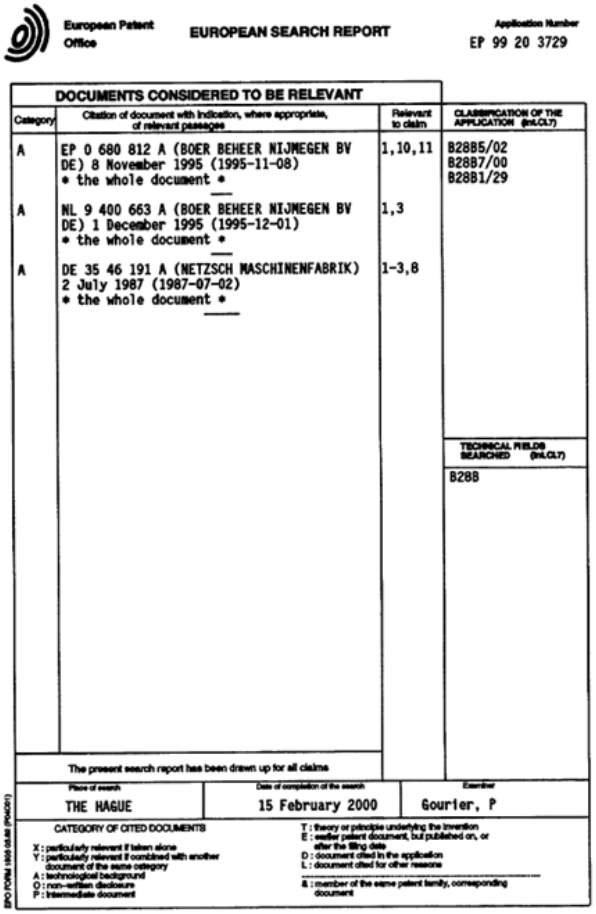
10. Apparatus as claimed in any of the foregoing claims, wherein the mould container parts are fixed movably onto the conveyor with some clearance in the direction of movement.

11. Apparatus as claimed in claim 10, wherein the conveyor is a chain conveyor and the mould container parts are coupled with some clearance in the direction of movement to a chain part connectable to the chain.

The search report



"Cited documents" view.....



...corresponds to documents cited in the search report, found in the "Original document" view

Technology-specific: biochemistry

Bibliographic data: US2010136531 (A1) — 2010-06-03

In my patents list | EP Register | Report data error | Print

NUCLEIC ACID DETECTION USING LATERAL FLOW METHODS

Page bookmark	US2010136531 (A1) - NUCLEIC ACID DETECTION USING LATERAL FLOW METHODS
Inventor(s):	GARTHWAITE IAN [AU]; MYERS PHILIP A [AU]; SADEK CHRISTINE M [AU] +
Applicant(s):	TECRA INTERNAT PTY LTD [AU] +
Classification:	**- international:** ***C12Q1/68***
	- cooperative: C12Q1/6804; C12Q1/6816; G01N33/5308; G01N33/558; G01N33/56911; G01N33/585 → more
Application number:	US 20070296536 20070410
Priority number(s):	US20070296536 20070410 , AU20060901847 20060410 , US20060790536P 20060410 , WO2007IB00923 20070410
Also published as:	WO2007116298 (A2) WO2007116298 (A3) EP2007903 (A2) AU2007235649 (A1)

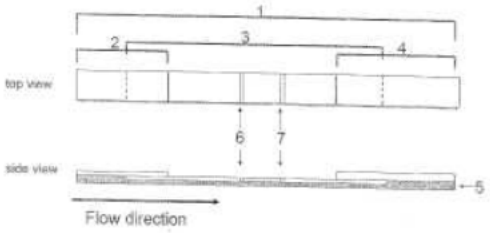
Abstract of US2010136531 (A1)

Translate this text into

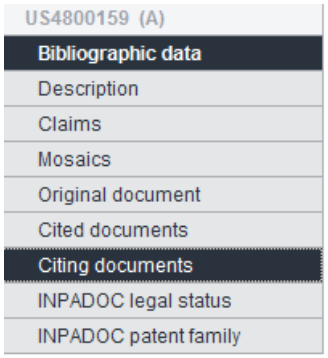
Albanian

patenttranslate powered by EPO and Google

Methods and kits for use in detecting a target nucleic acid in a sample are disclosed. In one particular application, the methods and kits allow for the detection of an undesirable micro-organism (e.g. Listeria, Salmonella or Enterobacteriaceae) in food or present on a food preparation surface.



Commercial relevance: technological impact (I)



Bibliographic data: US4800159 (A) — 1989-01-24

In my patents list | EP Register | Report data error | Print

Process for amplifying, detecting, and/or cloning nucleic acid sequences

Page bookmark	US4800159 (A) - Process for amplifying, detecting, and/or cloning nucleic acid sequences
Inventor(s):	MULLIS KARY B [US]; ERLICH HENRY A [US]; ARNHEIM NORMAN [US]; HORN GLENN T [US]; SAIKI RANDALL K [US]; SCHARF STEPHEN J [US] +
Applicant(s):	CETUS CORP [US] +
Classification:	**- international:** ***C12Q1/68;*** (IPC1-7): C07H21/04; C12N15/00; C12P19/34
	- cooperative: **C12Q1/6858**
Application number:	US 19860943948 19861217
Priority number(s):	US19860828144 19860207 ; US19860943948 19861217
Also published as:	US4800159 (X6) US4800159 (X6)

Abstract of US4800159 (A)

Translate this text into
Albanian
patenttranslate powered by EPO and Google

The present invention is directed to a process for amplifying and detecting any target nucleic acid sequence contained in a nucleic acid or mixture thereof. The process comprises treating separate complementary strands of the nucleic acid with a molar excess of two oligonucleotide primers, extending the primers to form complementary primer extension products which act as templates for synthesizing the desired nucleic acid sequence, and detecting the sequence so amplified. The steps of the reaction may be carried out stepwise or simultaneously and can be repeated as often as desired. In addition, a specific nucleic acid sequence may be cloned into a vector by using primers to amplify the sequence, which contain restriction sites on their non-complementary ends, and a nucleic acid fragment may be prepared from an existing shorter fragment using the amplification process.

Commercial relevance: movers and shakers

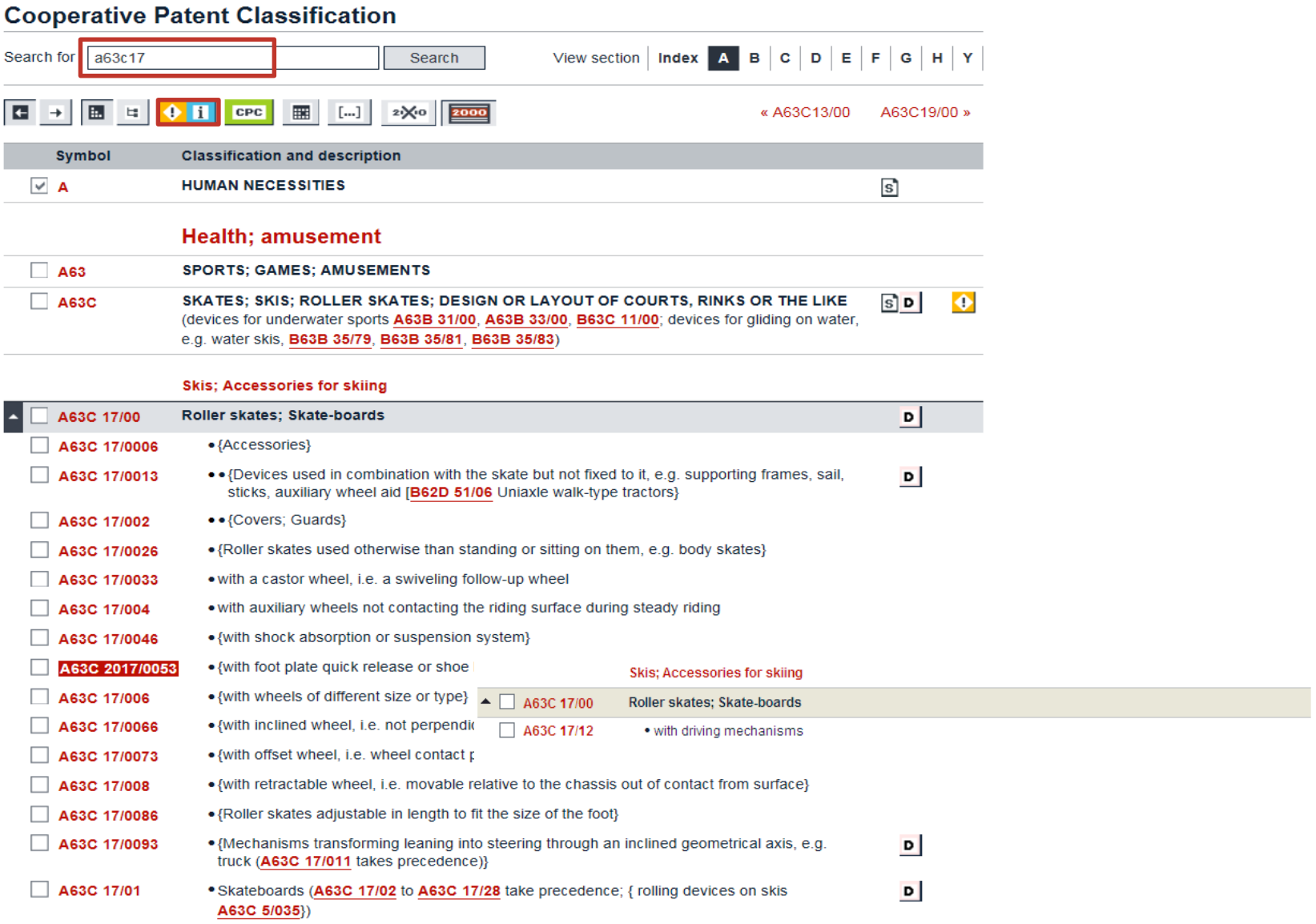
Bibliographic data: US4800159 (A) — 1989-01-24

In my patents list | EP Register | Report data error | Print

Process for amplifying, detecting, and/or cloning nucleic acid sequences

Page bookmark	US4800159 (A) - Process for amplifying, detecting, and/or cloning nucleic acid sequences
Inventor(s):	MULLIS KARY B [US]; ERLICH HENRY A [US]; ARNHEIM NORMAN [US]; HORN GLENN T [US]; SAIKI RANDALL K [US]; SCHARF STEPHEN J [US] +
Applicant(s):	CETUS CORP [US] +

CPC classification search by symbol (II)



CPC classification

- Keywords or classes
- "Concept search"
- Prepare offline (not in Espacenet document databases)
- Principle:
  - Find most appropriate classifications
  - Copy (into advanced search mask)
  - Refine search with keywords (do not repeat)
  - Other search terms

Exercise

Imagine you need to look for computer-controlled ABS by means of microprocessors.

- How would you find suitable patent classifications?

- How would you find out how many patents the following companies have in this technology?
  - Citroën
  - Mitsubishi
  - Volkswagen
  - Nissan

Exercise

In today's cars, the connection between the throttle pedal and the engine is made by electrical signals travelling through wires. The pedal sensor gauges how far the driver is pressing the throttle pedal and sends signals to the engine's control computer, which determines how much to open the throttle based on input from a variety of sensors, choosing a setting that will achieve the lowest exhaust emissions, the best fuel efficiency and good engine response. In 2010, Toyota had to recall many of its products because of a failure of the on-board drive-by-wire system.

- How would you find the relevant Toyota patents?

THE EUROPEAN PATENT REGISTER

About the European Patent Register

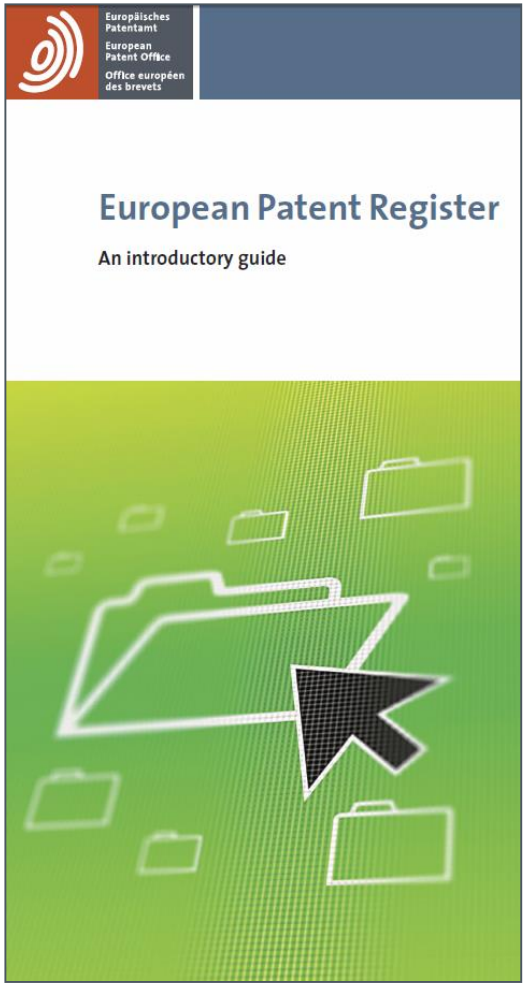
The European Patent Register provides free online access to

- legal status information
- procedural status information

relating to

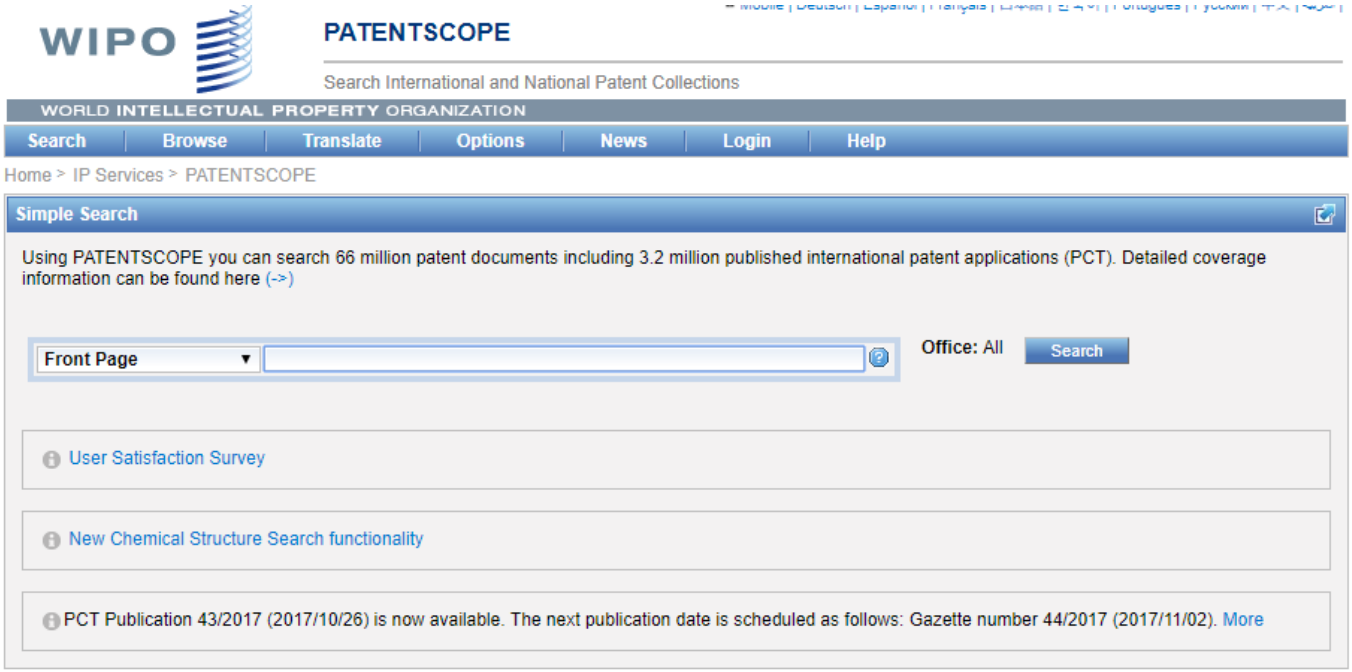
- EP applications
- PCT applications

at the EPO during the European phase



Exercise

How many patent applications filed by Boeing are being opposed by Airbus?



PATENTSCOPE

PATENTING ACTIVITY AT TOYOTA

Results **1-10** of **206,612** for Criteria:**FP:(toyota)** Office(s):**all** Language:**EN** Stemming: **true**

prev 1 2 3 4 5 6 7 8 9 10 next Page: 1 / 20662 Go >

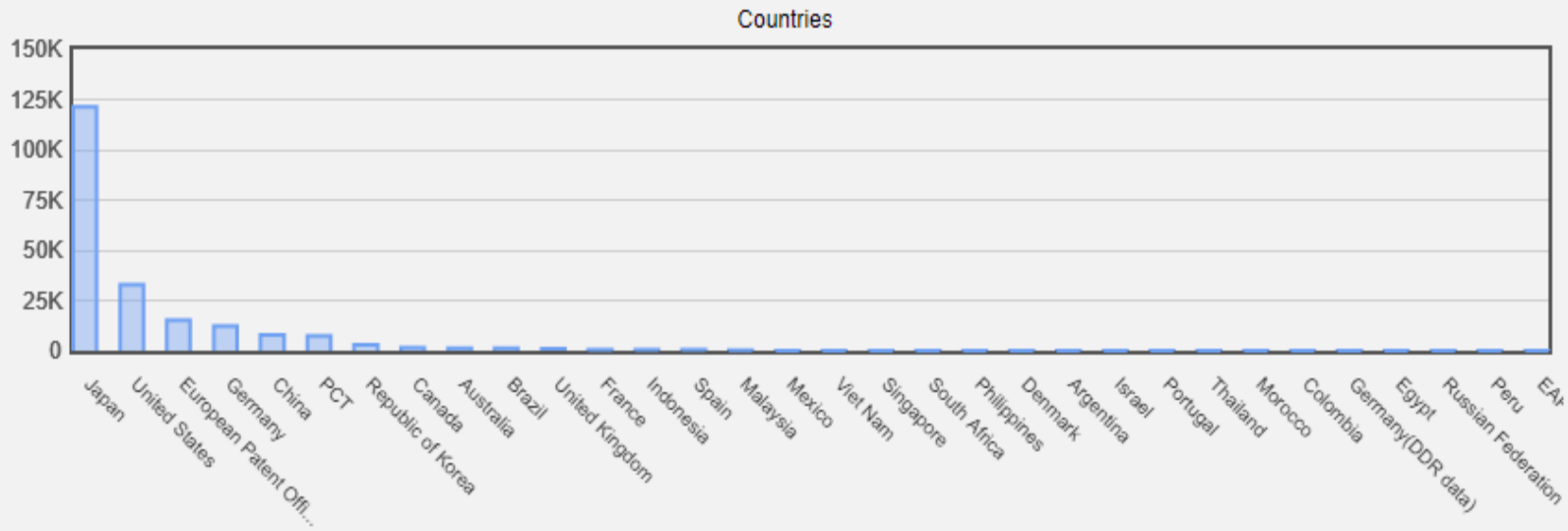
Refine Search FP:(toyota) Search RSS

Instant Help

Analysis

Options Table Graph Options bar pie Line

Country | Main IPC | Main Inventors | Main Applicants | Publication Date



Results **1-10** of **206,612** for Criteria:**FP:(toyota)** Office(s):**all** Language:**EN** Stemming: **true**

prev 1 2 3 4 5 6 7 8 9 10 next
Page: 1 / 20662 Go >

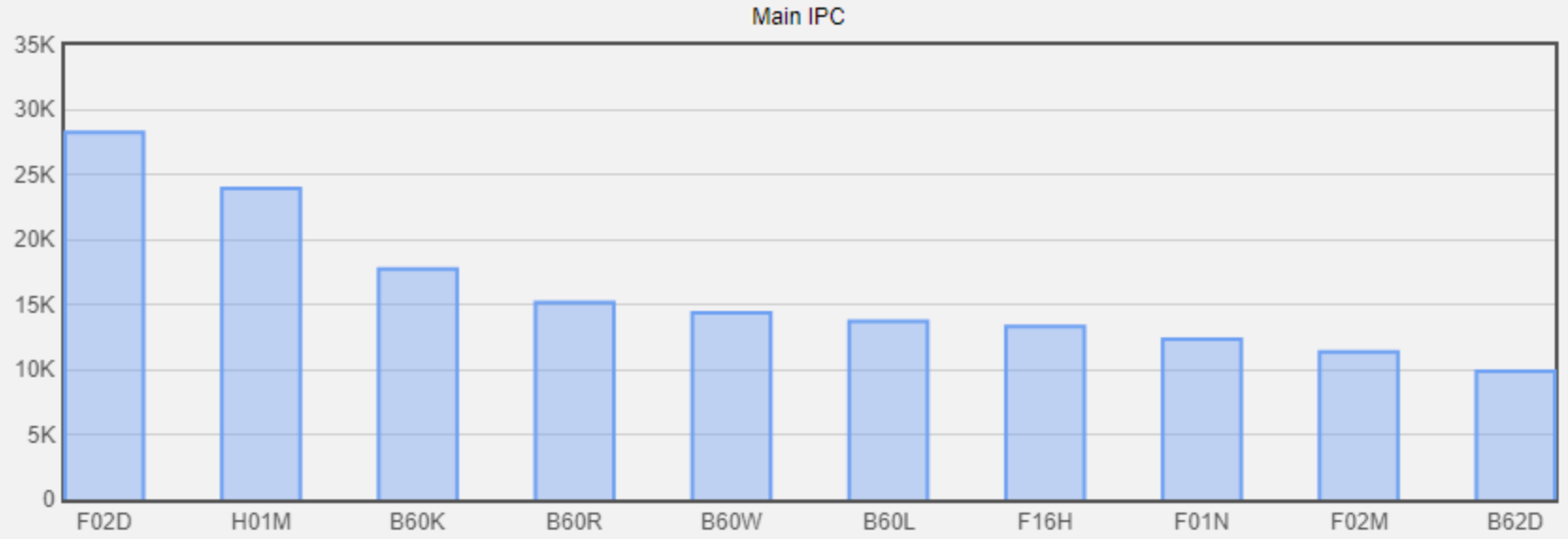
Refine Search FP:(toyota) Search RSS

Instant Help

Analysis

Options Table Graph Options bar pie Line

Country | Main IPC | Main Inventors | Main Applicants | Publication Date



Smart search
Advanced search
Classification search

Cooperative Patent Classification

Search for f02d Search

View section | Index | A | B | C | D | E | F | G | H | Y

« F02C9/00 F02D1/00 »

Quick help

- What is the Cooperative Patent Classification system?
- How do I enter classification symbols?
- What do the different buttons mean?
- Can I retrieve a classification using keywords?
- Can I start a new search using the classifications listed?
- Where can I view the description of a particular CPC class?
- What is the meaning of the stars in front of the classifications found?
- What does the text in brackets mean?

Selected classifications

nothing selected

Find patents
Copy to search form

Symbol	Classification and description
F	MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
	ENGINES OR PUMPS
F02	**COMBUSTION ENGINES** (cyclically operating valves therefor, lubricating, exhausting, or silencing engines F01); **HOT-GAS OR COMBUSTION-PRODUCT ENGINE PLANTS**
F02D	**CONTROLLING COMBUSTION ENGINES** (cyclically operating valves for combustion engines F01L; controlling combustion engine lubrication F01M; cooling internal combustion engines F01P; supplying combustion engines with combustible mixtures or constituents thereof, e.g. carburettors, injection pumps F02M; starting of combustion engines F02N; controlling of ignition F02P; controlling gas-turbine plants, jet-propulsion plants, or combustion-product engine plants, see the relevant subclasses for these plants)
	Controlling, e.g. regulating, fuel injection (peculiar to engines characterised by their use of non-liquid fuels, pluralities of fuels, or non-fuel substances added to the combustible mixtures F02D 19/00; peculiar to supercharged engines F02D 23/00; automatic controllers for prime movers, in general G05D)
F02D 1/00	**Controlling fuel-injection pumps, e.g. of high pressure injection type** (F02D 3/00 takes precedence; controlling fuel-injection electrically F02D 41/30 {pumping elements on fuel pressure acting for varying fuel delivery in quantity or timing F02M})
F02D 3/00	**Controlling low-pressure fuel injection, i.e. where the air-fuel mixture containing fuel thus injected will be substantially compressed by the compression stroke of the engine, by means other than controlling only an injection pump** (controlling fuel-injection electrically F02D 41/30; {controlling the feeding of liquid fuel from storage containers to carburettors or fuel-injection apparatus F02D 33/003; } carburettors F02M)
F02D 7/00	**Other fuel-injection control**
F02D 9/00	**Controlling engines by throttling air or fuel-and-air induction conduits or exhaust conduits**
F02D 11/00	**Arrangements for, or adaptations to, non-automatic engine control initiation means, e.g. operator initiated** (specially for reversing F02D 27/00; arrangement or mounting of prime-mover control devices in vehicles B60K 26/00)
F02D 13/00	**Controlling the engine output power by varying inlet or exhaust valve operating characteristics, e.g. timing** (modifying valve gear F01L)
F02D 15/00	**Varying compression ratio** (modifying valve gear F01L)

Results **1-10** of **220,260** for Criteria:IC:"F02D" Office(s):**all** Language:**EN** Stemming: **true**

prev 1 2 3 4 5 6 7 8 9 10 next Page: 1 / 22027 Go >

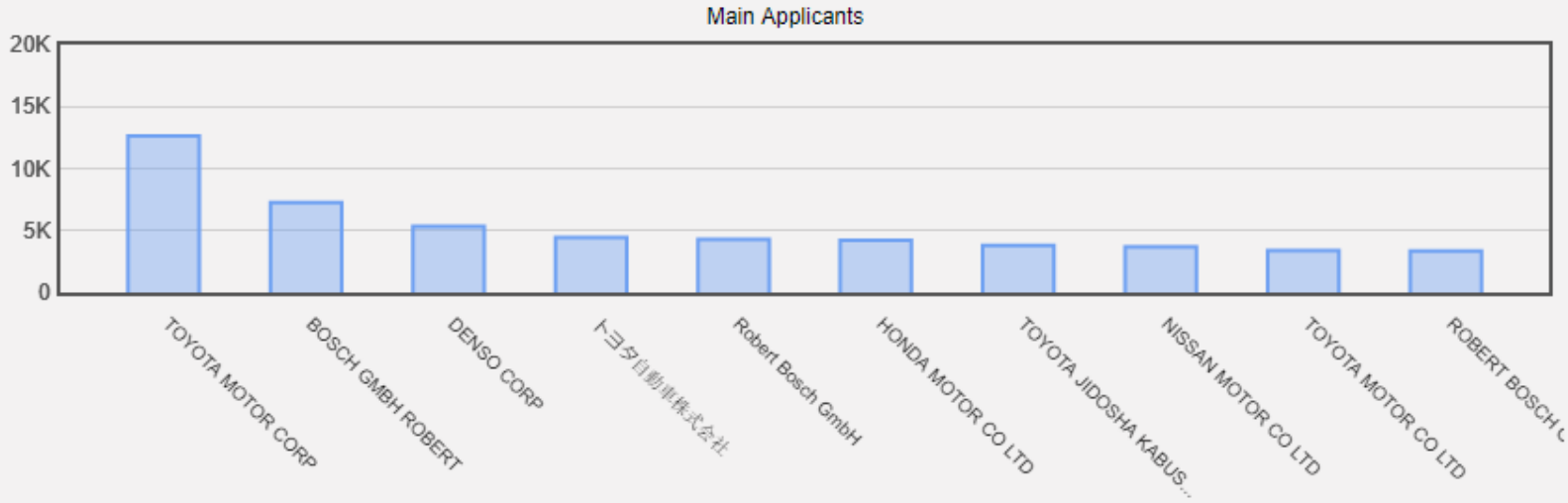
Refine Search IC:"F02D" Search RSS

Instant Help

Analysis

Options Table Graph Options bar pie Line

Country | Main IPC | Main Inventors | Main Applicants | Publication Date



If time allows

Other IP rights

TRADE MARKS

What is a trade mark?

- A trade mark is any sign, capable of being represented graphically, which distinguishes the goods and services of one undertaking (company or organisation) from those of another

- Many different types: word, figurative, colour, shape

- Absolute grounds for refusal
  - Distinctiveness

- Relative grounds for refusal
  - When peaceful co-existence of marks is impossible

Routes for registration

- National
- International
- EU
  - European Union Trade Mark

Scope of protection

- Exclusive right, but
  - principle of speciality
  - principle of territoriality
- Potentially perpetual (renewal every ten years)
- Risk of loss of protection if:
  - not used after five years
  - found to be invalid
- Allowed uses

DESIGNS

What is a design?

- A design is the outward appearance of the whole or parts of a product resulting from its features.
- A product is any industrial or handicraft item.
- Requirements for protection
  - Novelty
  - Individual character
- Some exclusions

Registered and unregistered design rights

- National
- International
- EU
  - registered Community design
  - unregistered Community design

Scope of protection

- Exclusive right
- Principle of territoriality
- Duration
  - registered design rights: maximum 25 years
  - unregistered design rights: 3 years
- Allowed uses

GEOGRAPHICAL INDICATIONS

What are geographical indications?

- Geographical indications identify a good as originating in the territory of a country or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin.

- Protection under EU legislation

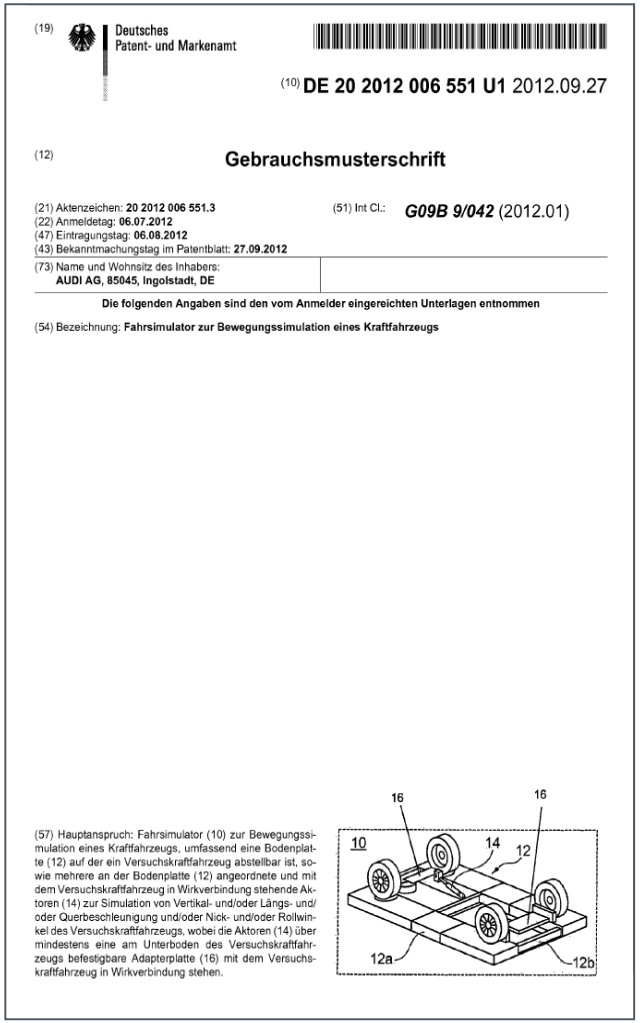
Protected geographical indication (PGI)	Protected designation of origin (PDO)
	

Difference between PGIs and PDOs

- Stricter conditions apply to PDOs:
  - Link between place name and product is essentially or exclusively due to the particular geographical environment.
  - All stages from production, processing and preparation are located in the defined geographical area.

UTILITY MODELS

What is a utility model?



(19) Deutsches Patent- und Markenamt

(10) **DE 20 2012 006 551 U1** 2012.09.27

(12) **Gebrauchsmusterschrift**

(21) Aktenzeichen: **20 2012 006 551.3**
(22) Anmeldetag: **06.07.2012**
(47) Eintragungstag: **06.08.2012**
(43) Bekanntmachungstag im Patentblatt: **27.09.2012**

(51) Int Cl.: ***G09B 9/042*** (2012.01)

(73) Name und Wohnsitz des Inhabers:
AUDI AG, 85045, Ingolstadt, DE

Die folgenden Angaben sind den vom Anmelder eingereichten Unterlagen entnommen

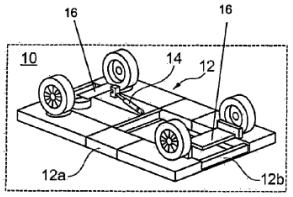
(54) Bezeichnung: **Fahrsimulator zur Bewegungssimulation eines Kraftfahrzeugs**

(57) Hauptanspruch: Fahrsimulator (10) zur Bewegungssimulation eines Kraftfahrzeugs, umfassend eine Bodenplatte (12) auf der ein Versuchskraftfahrzeug abstellbar ist, sowie mehrere an der Bodenplatte (12) angeordnete und mit dem Versuchskraftfahrzeug in Wirkverbindung stehende Aktoren (14) zur Simulation von Vertikal- und/oder Längs- und/oder Querbeschleunigung und/oder Nick- und/oder Rollwinkel des Versuchskraftfahrzeugs, wobei die Aktoren (14) über mindestens eine am Unterboden des Versuchskraftfahrzeugs befestigbare Adapterplatte (16) mit dem Versuchskraftfahrzeug in Wirkverbindung stehen.

- A utility model grants the holder the exclusive right to prevent third parties from:
  - exploiting an invention (e.g. making, using, offering for sale)
  - without authorisation in the country where the utility model was registered

  for a short period (3 to 10 years).
- The holder has to disclose the invention to the public.

Reveal invention (disclosure)



Get protection (utility model)

Scope of protection compared with patents

Utility models

- Registered territorial IP right
- Available in limited number of countries
- No central filing in Europe
- Protection for 3 -10 years
- Search reports in some countries only
- Registered and published after a few months
- Generally no substantive examination (novelty, inventiveness)
- Reviewed only in revocation or infringement proceedings

Patents

- Registered territorial IP right
- Available in most countries
- Central filing possible (e.g. EPO for Europe)
- Protection for up to 20 years
- Search reports standard
- Application published after 18 months
- Substantive examination (novelty, inventive step)
- Grant or refusal after substantive examination procedure

PLANT VARIETY RIGHTS

What are plant variety rights?

- Exclusive exploitation rights for new plant varieties
- Four requirements for protection:
  - novelty
  - distinctness
  - uniformity
  - stability
- Right holder = breeder
- Obtained through registration

Scope of protection

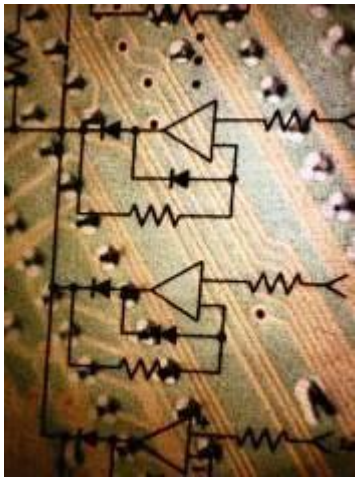
- Duration
  - At least 20 years
  - At least 25 years for varieties of vine and tree species
- Subject-matter
  - Propagating material
  - Harvested material
- Acts subject to authorisation
- Exceptions

SEMICONDUCTOR TOPOGRAPHY RIGHTS

What are semiconductor topography rights?

Semiconductor topography rights protect layout designs of integrated circuits.

- Three-dimensional components and layers and their interconnections
- Copying relatively easy
- Reverse engineering accepted practice



Substantive requirements

- Original, i.e. the result of the creator's own intellectual effort
- Not commonplace

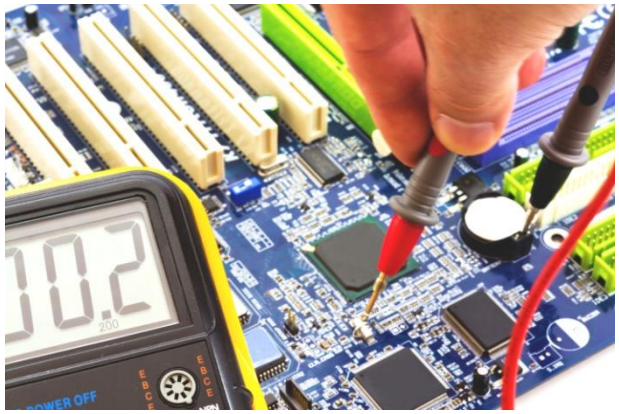
Formal requirements

TRIPS member states may prescribe:

- registration
- disclosure of electronic function
- registration fee
- commercial exploitation

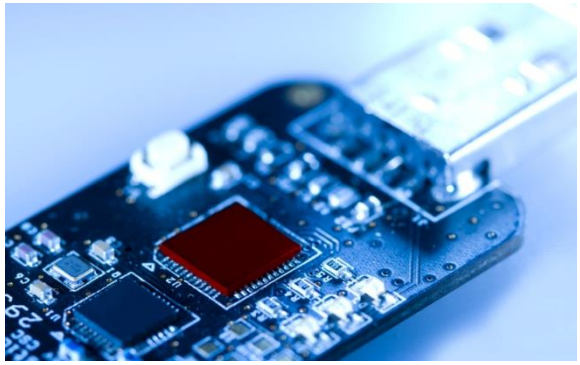
Scope of protection

Rights prevent others from reproducing, selling or importing part or all of the protected design and of products incorporating it



Duration of protection

10-15 years from the date of creation of the layout design



Exceptions and limitations

- No infringement if for private use, research or teaching
- Reverse engineering to foster innovation
- Independent creation of an identical design
- Innocent infringement

COPYRIGHT

What is copyright?

- Copyright protects any production of the human mind, such as literary and artistic works.
  - This production must be an expression and not a mere idea.
  - The expression must be original.
- Copyright creates a special legal relationship between authors and their work.
- It confers legal protection for a limited period of time.

Scope of protection

- Economic rights
  - relate to the economic exploitation of the work
  - are freely transferable or licensable

- Moral rights
  - relate to a moral interest of the author
  - are always retained by the author

- Exceptions and limitations

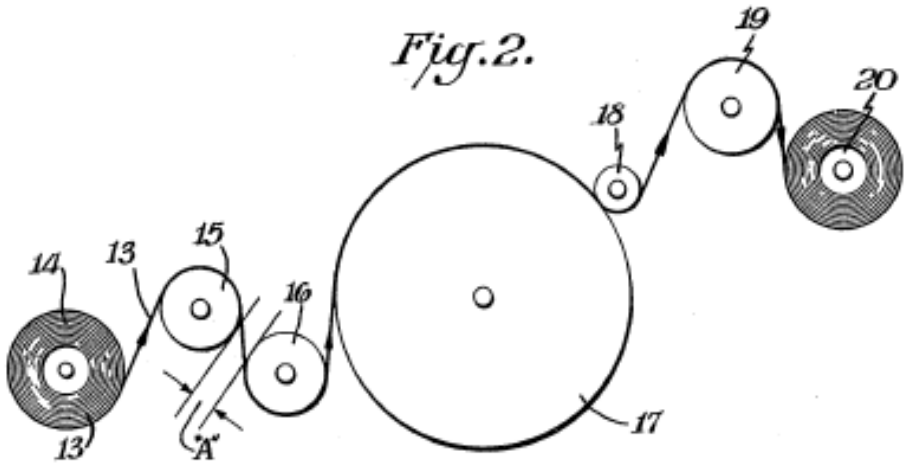
- Infringement and remedies

TRADE SECRETS

What are trade secrets?

- Information that
  - is not generally known or easily discovered
  - has a business, commercial or economic value (actual or potential) because the information is not generally known
  - is subject to reasonable efforts to maintain secrecy
- Unlimited life, provided the information does not become public knowledge.

Scope of protection



Products/processes where reverse engineering is difficult

Images from www.coca-cola.com