

Transferring V4 expertise in knowledge/technology transfer

Intellectual property rights (IPR)
and what are they good for

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i. Intellectual Property

When talking about property we usually think of something real, something we can touch.

Yet there is property with no physical substance whose value stems not from its physical attributes, but from **what it represents**.

If you have an original idea or piece of creative work, no matter what others may say, it's still **a potential asset** and should be treated as such.

- Tangible property

- Buildings
- Machinery
- Equipment
- Vehicles
- Land
- Cash
- ...

We can touch

- Intangible property

- Copyrights
- Patents
- Trademarks
- Know how
- Licences
- Brands
- ...

We can **not** touch

Simple cake:

In a medium bowl, cream together the sugar and butter. Beat in the eggs, one at a time, then stir in the vanilla. Combine flour and baking powder, add to the creamed mixture and mix well. Finally stir in the milk until batter is smooth. Pour or spoon batter into the prepared pan.



When you have a great idea for a product or service, there will always be people who will want to duplicate your success and **sell your ideas as their own**. Depending on individual circumstances, you can use patents, trademarks or copyrights – all of which cover different areas of intellectual property. These can be used **to prevent competitors or anyone else from using your ideas for their own profit** without your consent.

The making of an invention and its development for industrial application, usually involve considerable expense for the applicant/owner of the patent. The patent owner thus wishes to recover this expense through exploitation of the patented invention, in particular through the sale of products that incorporate the invention or through licensing the rights.

Intellectual property

Industrial Property

Copyright

- ❖ Inventions
- ❖ Industrial design
- ❖ Trademark
- ❖ Designation of origin

- ❖ Know-how
- ❖ Trade secret

- ❖ Literary works
- ❖ Artistic works
- ❖ Broadcasting
- ❖ Performers rights
- ❖ Software

Invention vs. Discovery



Only **inventions** can be protected by patents – not discoveries!

ii. Invention

- **An invention is a unique or novel device, method, composition or process.** The invention process is a process within an overall engineering and product development process. It may be an improvement upon a machine or product or a new process for creating an object or a result. An invention that achieves a completely unique function or result may be a radical breakthrough. Such works are novel and not obvious to others skilled in the same field.
- **Some inventions can be patented.** A patent legally protects the intellectual property rights of the inventor and legally recognizes that a claimed invention is actually an invention. The rules and requirements for patenting an invention vary from country to country and the process of obtaining a patent is often expensive.

Patentability of inventions

- An **invention** must meet several criteria to be eligible for patent protection:
 - ❖ invention must be **industrially applicable** (useful)
 - ❖ it must be **new** (novel)
 - ❖ it must be **inventive**, eg. exhibit a sufficient “inventive step” (be non-obvious)
- An additional requirement of patentability:

The application must disclose the invention in a manner sufficiently clear for the invention to be carried out by a person skilled in the art. (This is of fundamental importance, since one of the main functions of the description is to provide new technical information to third parties.)

What is an invention?

- **Invention** means a solution to a specific problem in the field of technology.
- An invention may relate to a product or a process.
- Following are **NOT** considered as inventions (therefore are not patentable):

discoveries of materials or substances already existing in nature; scientific theories or mathematical methods; plants and animals other than microorganisms; schemes, rules or methods, playing games; **software**

Non-patentable inventions

- methods of **human cloning** are regarded as unethical and are therefore not patentable.
- It is not possible to prove that a **perpetual motion machine** will work for all eternity, therefore it is not patentable.
- It is not possible to get patents for inventions which are **contrary to public order or morality**.
- a procedure for surgical or therapeutic treatment, or diagnosis, to be **practised on a body** of humans or animals. This is partly because a patent must not prevent doctors from curing and preventing illnesses and partly because the methods can have different effects on different patients.

Useful, novel, non-obvious

- An invention, in order to be patentable, must be of a kind which can be **applied for practical purposes**, not be purely theoretical. If the invention is intended to be a product or part of a product, it should be possible to make that product. And if the invention is intended to be a process or part of a process, it should be possible to carry that process out or “use” it in practice.
- Novelty is a fundamental requirement in any examination as to substance and is an undisputed condition of patentability. Novelty is not something which can be proved or established; only its absence can be proved.
- An invention is new if it is not anticipated by the prior art. “**Prior art**” is, in general, all the knowledge that existed prior to the relevant filing or priority date of a patent application, whether it existed by way of written or oral disclosure.

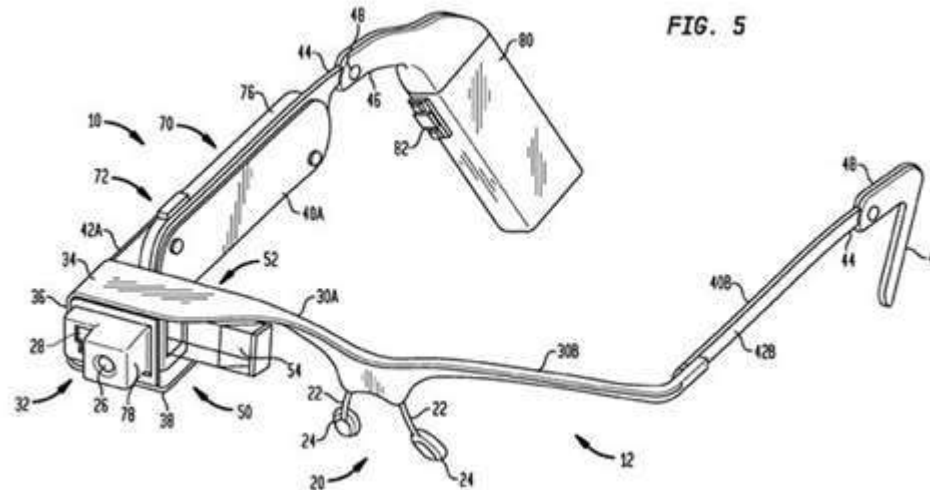
Patent First, Publish Later!

- An invention disclosed **before filing** date of a patent application is **not new!**
- An invention is disclosed :
 - ❖ by a description in a published **writing** (publication)
 - ❖ by a description in **spoken words** uttered in public (oral disclosure)
 - ❖ by the **use** of the invention in public (disclosure by use)

iii. Patent

- patents are intended to facilitate and encourage disclosure of innovations into the public domain for the common good.

- ❖ Novel
- ❖ Non-obvious
- ❖ Useful



- A patent is a **document**, issued, upon application, by a government office, which describes an invention and creates a legal situation in which the patented invention can normally only be exploited (manufactured, used, sold, imported) with the **authorization of the owner of the patent**.
 - ❖ The protection is limited in time (generally 20 years).
 - ❖ Patents are territorial rights, that are only applicable in the country in which a patent has been granted, in accordance with the law of that country..
 - ❖ The patented invention may not be exploited in the country by persons other than the patent owner unless the owner agrees to such exploitation.

iv. Search

- Inadequate literature review makes an author's research redundant – **up to 25 % cases!**
 - ❖ A case study: an author submitted his paper to a journal. The manuscript was sent for peer review. One of the reviewers pointed out that **there was already a published study on the same topic with very similar results**. The author had somehow missed this study during the literature search.
 - ❖ The existence of this paper made the author's work almost redundant. The author felt that the **time** he had spent on conducting this research was **completely wasted**.

Even if patenting is not really for you ...
...the patents shall be!

Patent databases offer **free** access to over **100 million**
patent documents from around the world.

www.epo.org, www.wipo.int, www.uspto.gov, www.upv.cz

Secret weapon: <https://patents.google.com/>

Patent information system

- The patent system provides the framework for the collection, classification and **dissemination** of technological information existing in the world today.
- In return for the grant of a patent, the inventor must disclose the details of his invention to society with such **clarity and completeness** of all the technical details that anyone having ordinary skill in the art should be able to carry out the invention.
- Thus the information contained in a patent is available for **research and experimental purposes** (although not, of course, for commercial use)
- On the expiration of the patent the information is freely available for full commercial use by all.

Using patent information

- The utilization of information available through disclosure of patent content **avoids wasteful duplication** of effort and the multiplication of costs for finding solutions that already exist.
- A state of the art search through patent documents will usually identify those solutions to a technical problem that have been proposed in the past.
- Patent literature will often **discuss disadvantages and difficulties** that can be avoided by using a particular process or design or will discuss advantages or benefits of a particular process or design.
- It acts as an **inspiration** or catalyst for further inventions, and this contributes to the advance of science and technology.

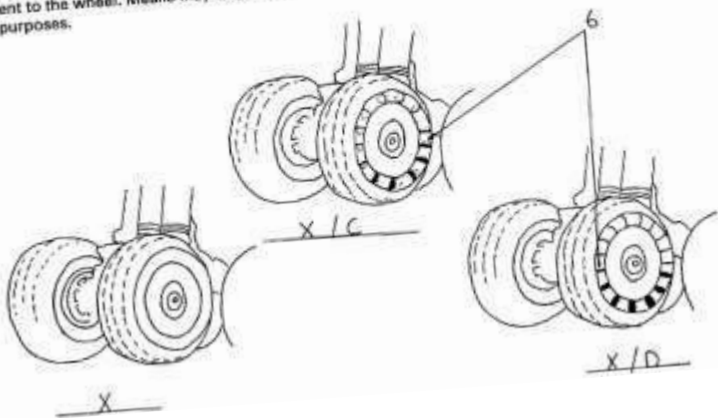
GB-A-2365393

(12) UK Patent Application (19) GB (11) 2 365 393 (13) A
(13) Date of A Publication 20.02.2002

(21) Application No 0019361.5	(51) INT CL ⁷ B64C 25/40
(22) Date of Filing 07.08.2000	(52) UK CL (Edition T) B7G GBH
(71) Applicant(s) Peter John Ginn 153 Waller Road, New Cross, LONDON, SE14 5LX, United Kingdom	(56) Documents Cited GB 2334925 A GB 2193932 A GB 1407398 A US 4040582 A GB 2242401 A GB 2080217 A GB 0616738 A US 3233849 A
(72) Inventor(s) Peter John Ginn	(58) Field of Search UK CL (Edition R) B7G INT CL ⁷ B64C 25/40
(74) Agent and/or Address for Service Peter John Ginn 153 Waller Road, New Cross, LONDON, SE14 5LX, United Kingdom	

(54) Abstract Title
Rotating aircraft wheels prior to landing

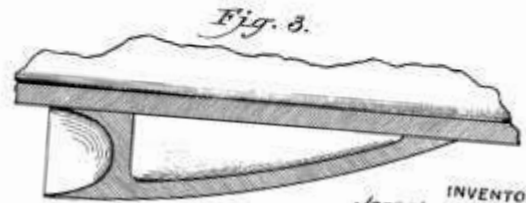
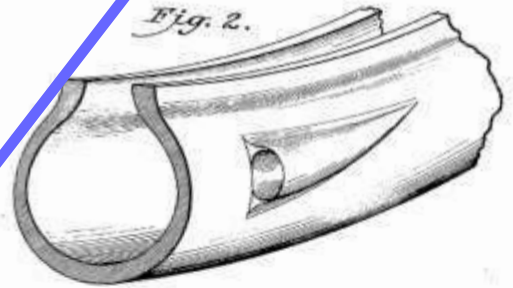
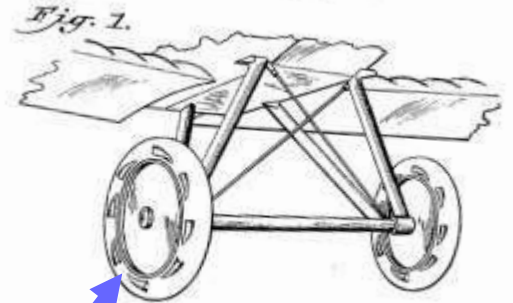
(57) An aircraft tyre or wheel is provided with pockets or ridges 6, which catch the airflow past the wheel and cause the wheel to rotate. The pockets/ridges may be formed in the tyre or an additional member for attachment to the wheel. Means may be provided for diverting air from a pocket into the wheel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



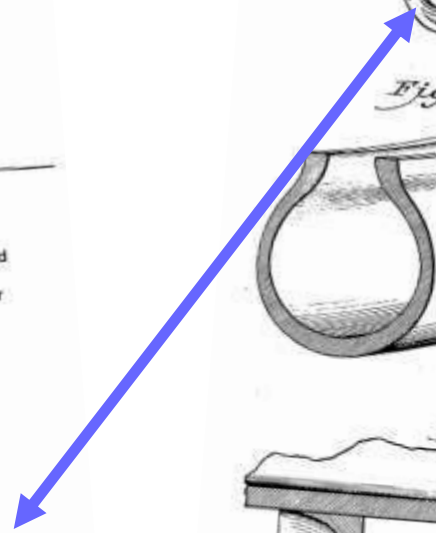
US-A-1833019

Nov. 24, 1931.

J. A. FAUCHER ET AL
AIRPLANE TYRE
Filed Nov. 1, 1929
1,833,019



INVENTORS
Joseph A. Faucher
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ATTORNEY



v. Strategy

- To patent or not to patent?
 - ❖ publication
 - ❖ trademark
 - ❖ trade secret
- Territory
 - ❖ National (~ 2.000 €)
 - ❖ EP (~ 6.000 €)
 - ❖ PCT (~ 4.000 €)
- **Patent check list:**
 - ❖ Is it an invention?
 - ❖ Is it ready for patenting?
 - ❖ Shall it be patented at all?
 - ❖ Is it novel?
 - ❖ Who are inventors/owners?
 - ❖ Is there demand for the technology?
 - ❖ Who will bear costs?
 - ❖ Is there an investor?
 - ❖ Do I want to follow the patent execution?

Which patent...?



national



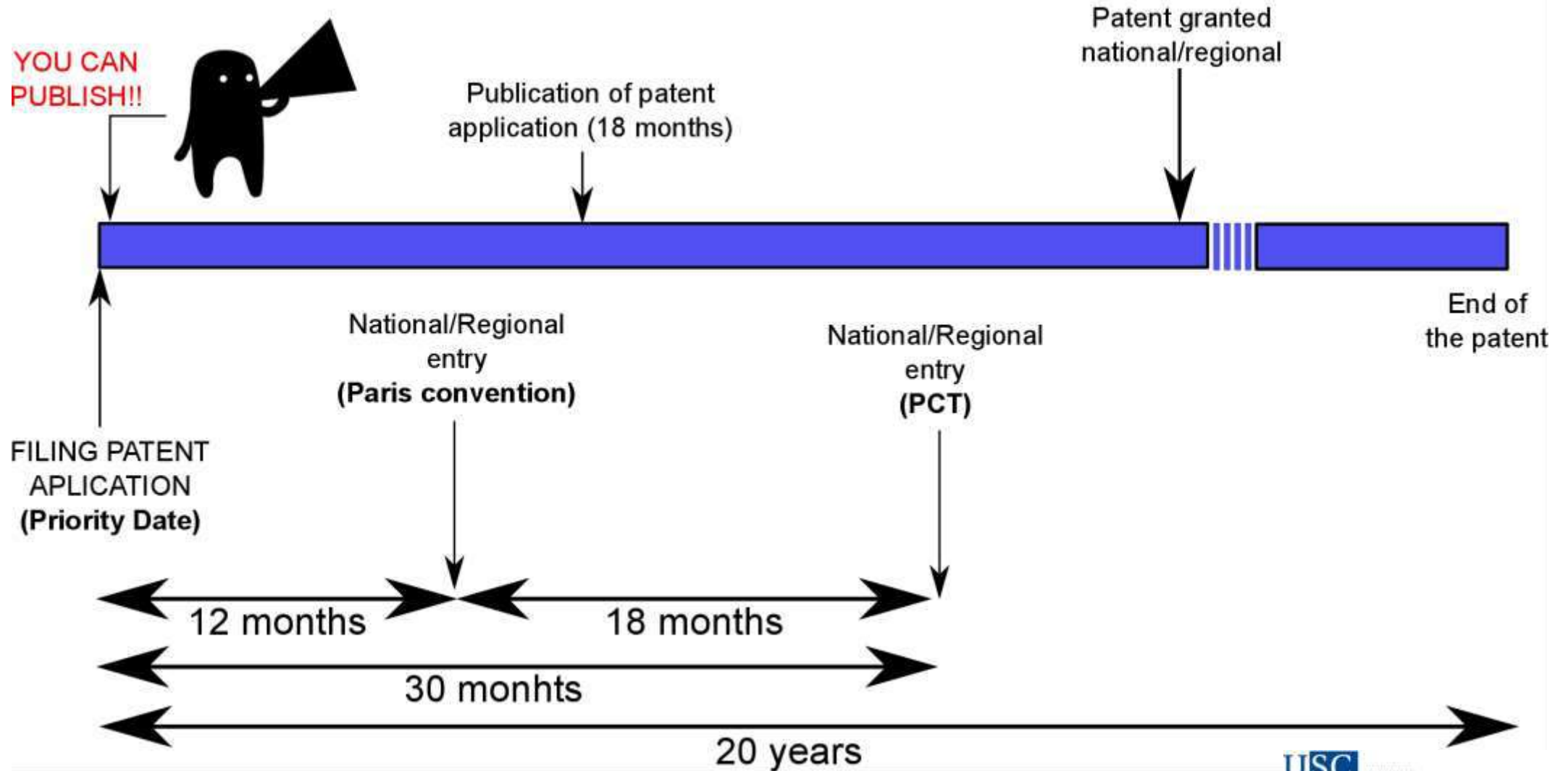
EPC

- Granted European patent for 38 countries
- Validation/fees
- **Not patent EU!!**



PCT

- International application for 152 countries
- **No patent granted!!**



How to...?

Good idea → Patent Filing

- General timeline
 - Scientific research and discovery
 - Disclosure of the discovery to TTO
 - Evaluation of the disclosure by TTO
 - Drafting of patent application
 - Final draft of patent application
 - Filing provisional or PCT or national application

Get in touch with TTO!!

in a cooperation with a patent attorney!!



INID Codes

Title of the Invention

Inventor(s)

Assignee/Owner

Application No

Filing Date

Prior Publication Data

International Patent Classification(s)

US Patent Classification

Field of Search

Patent Number

Date of Issue

References

Patent Examiner

Patent Attorney

Term Adjustments

Abstract

Patent Examiner

United States Patent
Lee et al.

(10) Patent No.: US 9,524,660 B2
(45) Date of Patent: Dec. 20, 2016

(54) DISPLAY APPARATUS

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(73) Assignee: SAMSUNG ELECTRONICS CO., LTD., Suwon-si (KR)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(h) by 138 days.

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Jul. 29, 2013	(KR)	10-2013-0089398
Dec. 23, 2013	(KR)	10-2013-0161466

(71) Int. Cl.
H05K 7/00 (2006.01)
H05K 5/00 (2006.01)
G09F 9/30 (2006.01)
G02F 1/1333 (2006.01)

(32) U.S. Cl.
CPC: G09F 9/301 (2013.01); G02F 1/133303 (2013.01)

(55) Field of Classification Search
CPC: G09F 1/1333
USPC: 361/870-81
See application file for complete search history.

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			362/97.1

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KR	20-2008-0008708 U	12/2008
KR	10-2013-0090794 A	5/2013

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(Continued)

Primary Examiner: Jerry Wu

(74) Attorney, Agent or Firm: Stephen Moon, PLLC

(57) ABSTRACT

A display apparatus including a display module, and a drive device to deform the display module, is provided. The drive device switches the display module between a planar state and a curved state in which at least one lateral end of the display module protrudes forward. As such, the user may use the display module both in a planar state and a curved state.

5 Claims, 22 Drawing Sheets

Patent classification

- The international patent classification (IPC) provides for a hierarchical system of language independent symbols for the classification of patents and utility models according to the different areas of technology

<https://www.wipo.int/classifications/ipc/en/>

- The Cooperative **Patent Classification (CPC)** is an extension of the IPC and is jointly managed by the EPO and the US **Patent** and Trademark Office.

<https://worldwide.espacenet.com/classification>

Thanks for your time!

... any questions?

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