

Patenting Your **Bright Ideas**

Engineers Ireland
Cork Region

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What is a patent?

A patent is an exclusive right given by the state and enforceable in the courts. It is a monopoly in the manufacture, sale and use of an invention for a limited period. In Ireland and most other countries this period is 20 years, subject to the payment of annual renewal fees.

Patents fulfill various overlapping roles

- Marketing tools, indicating successful research.
- Deterrent and Legal tools to restrict infringers.
- Rights which can be licensed.
- Enhance company valuation.

Examples

The examples on the following pages illustrate the nature of inventions which can be patented and how a specification is drafted.

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- (71) Applicant and
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25/0513, S-115 57 Stockholm (SE).
- (74) Agent: GRIP, Joakim; Bergenstråhle & Lindvall AB, P.O.
Box 17704, S-118 93 Stockholm (SE).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
UZ, VC, VN, YU, ZA, ZM, ZW.

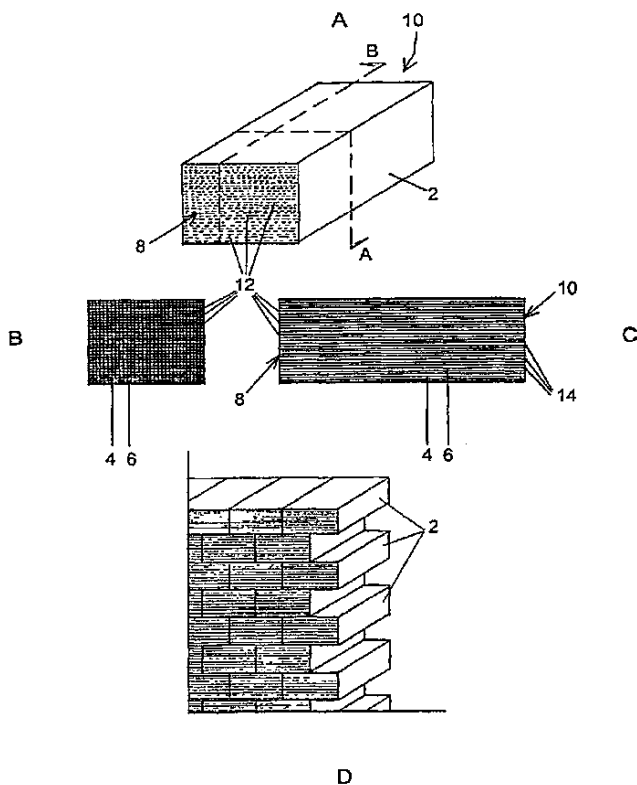
- (84) Designated States (regional): ARIPO patent (GH, GM,
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European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
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Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

- (54) Title: BUILDING BLOCK COMPRISING LIGHT TRANSMITTING FIBRES AND A METHOD FOR PRODUCING THE SAME



(57) Abstract: The present invention relates to a building block (2) comprising embedded light transmitting fibres (6) in a cast material (4), where the fibres are arranged in the cast material from a first lateral surface (8) of the building block to an opposite second lateral surface (10) of the same, whereby a fibre end, respectively, is arranged to end up at a respective position (12) on the first lateral surface (8), and the other end of the fiber is arranged to end up at a respective position (14) on the second lateral surface, whereby the fibres (6), respectively, permits transfer of light through the building block emitted from a light source arranged behind either of the lateral surfaces (8, 10), that the cast material (4) and the embedded fibres (6) therein constitute a building block (2) with a homogeneous structure that can receive load and further that a plurality of fibres (6) are evenly distributed over substantially the whole lateral surface (8, 10), respectively, whereby light can be emitted from the evenly distributed fibre ends in positions (12, 14) over substantially the whole lateral surface. The present invention also relates to a method for producing a building block comprising embedded light transmitting fibres.

WO 03/097954 A1

Claims

1. Building object made of a cast material (4) having a capability of receiving loads and comprising embedded light transmitting fibres (6), the fibres (6) have
5 respective first ends and second ends capable of receiving light from illumination behind the object and guide the light towards said first ends, said building object having respective predetermined height, length and width, **characterized** in that said building object is a building block (2), wherein said length is defined between a first lateral surface (8) and an opposite second lateral surface (10),
10 said fibres (6) define a plurality of layers (22), in each layer (22) the fibres (6) are evenly spread and extend in longitudinal direction in parallel to each other and filling the full width of the building block (2), wherein the first end of each fibre (6) terminates at the first lateral surface (8) and the second end of each fibre (6) terminates at the second lateral surface (10), said layers filling substan-
15 tially the whole height of said building block (2).

2. The building object according to claim 1, **characterized** in that the cast material (4) is concrete, cement or gypsum.

20 3. The building object according to claim 1, **characterized** in that said fibres (6) have a thickness from some tenth part millimeters up to a few millimetres.

~~Amended claim 3~~

4. The building object according to claim 1, **characterized** in that the building
25 block (2) has a rectangular shape defined between three pairs of planar surfaces being mutually normal to each other.

5. Method for production of a building object (2) made of a cast material in accordance with any of the claims 1 to 4, comprising embedded light transmitting fibres (6) in a cast material (4), such as optical fibres or the like, which fibres permit transfer of light from one surface of the building object to an opposite surface **characterized** by the steps of:

- adding of a cast material (4) in an elongated mould (20) in a first step,



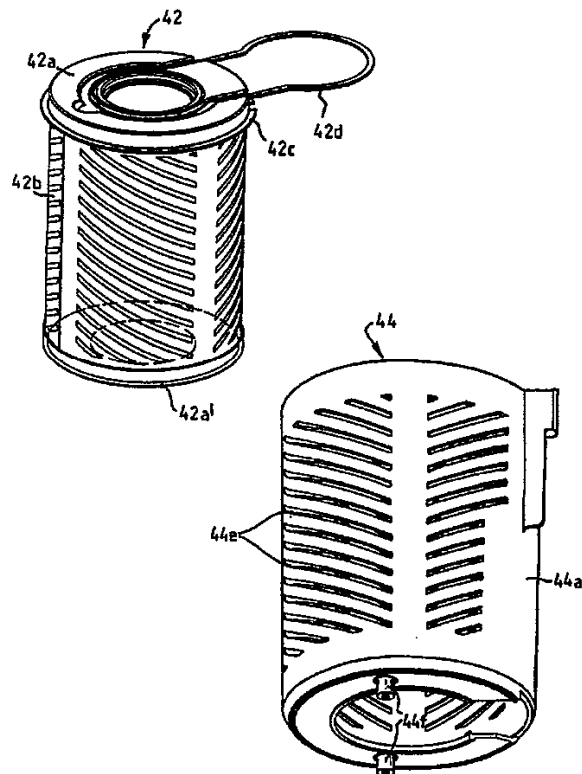
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

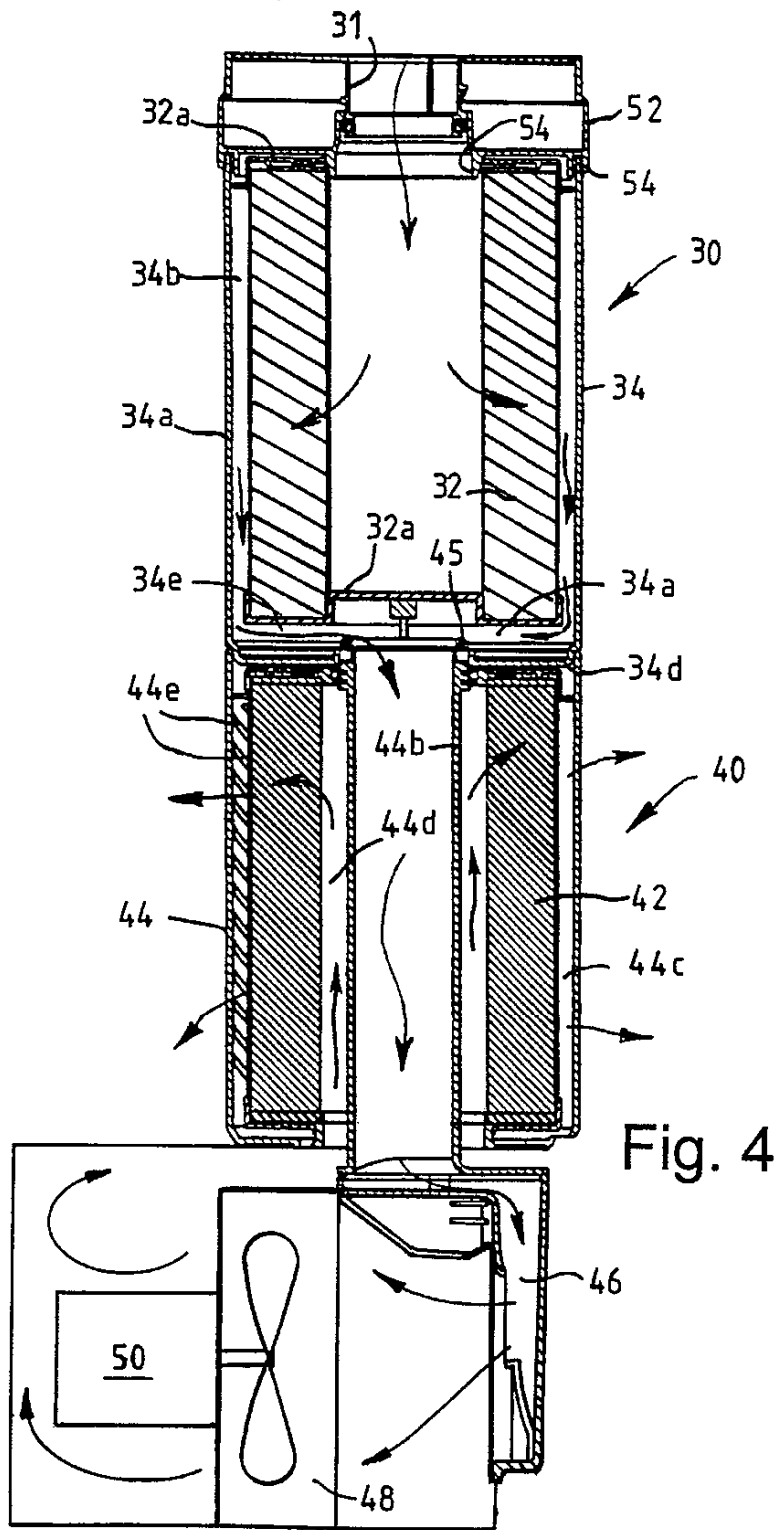
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<p>(21) International Application Number: PCT/GB98/03816</p> <p>(22) International Filing Date: 17 December 1998 (17.12.98)</p> <p>(30) Priority Data: 9726676.1 17 December 1997 (17.12.97) GB</p> <p>(71) Applicant (for all designated States except US): NOTETRY LIMITED [GB/GB]; Kingsmead Mill, Little Somerford, Wiltshire SN15 5JN (GB).</p> <p>(72) Inventor; and (75) Inventor/Applicant (for US only): DYSON, James [GB/GB]; Kingsmead Mill, Little Somerford, Wiltshire SN15 5JN (GB).</p> <p>(74) Agent: DEVONS, David, Jon; Marks & Clerk, 57-60 Lincoln's Inn Fields, London WC2A 3LS (GB).</p>	<p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p>Published Without international search report and to be republished upon receipt of that report.</p>	

(54) Title: A VACUUM CLEANER

(57) Abstract

The invention provides a vacuum cleaner comprising an airflow path having a dirty air inlet (14) and a clean air outlet (44e), a fan (48) for drawing an airflow along the airflow path from the dirty air inlet (14) to the clean air outlet (44e), a motor (50) for driving the fan (48), separating apparatus (18) for separating dirt and dust from the airflow, a pre-motor filter (32) arranged upstream of the motor (50) and a post-motor filter (42) arranged downstream of the motor (50), wherein both the pre-motor filter (32) and the post-motor filter (42) are cylindrical filters. The invention further provides a vacuum cleaner comprising an airflow path having a dirty air inlet (14) and a clean air outlet (44e), a fan (48) for drawing an airflow along the airflow path from the dirty air inlet (14) to the clean air outlet (44e), a motor (48) for driving the fan (50), separating apparatus (18) for separating dirt and dust from the airflow, a pre-motor filter (32) arranged upstream of the motor (50) and a post-motor filter (42) arranged downstream of the motor (50), wherein the post-motor filter (42) is housed in a casing (44) containing a plurality of slots or apertures (44e), the slots or apertures (44e) forming the clean air outlet and being arranged such that, in use, the airflow is diffused as it leaves the clean air outlet.





CLAIMS

1. A vacuum cleaner comprising an airflow path having a dirty air inlet (14) and a clean air outlet (44e), a fan (48) for drawing an airflow along the airflow path from the dirty air inlet (14) to the clean air outlet (44c), a motor (50) for driving the fan (48), separating apparatus (18) for separating dirt and dust from the airflow, a pre-motor filter (32) arranged upstream of the motor (50) and a post-motor filter (42) arranged downstream of the motor (50), the post-motor filter (42) lying between the pre-motor filter (32) and the motor (50) with an outlet of the pre-motor filter (32) communicating with a passageway passing through the post-motor filter (42) to the motor (50), wherein the post-motor filter (42) is housed in a casing (44) containing a plurality of slots or apertures (44e) forming the clean air outlet, characterised in that the casing (44) has a convex surface (44a) in which the slots or apertures (44e) are arranged such that, in use, the airflow is diffused as it leaves the clean air outlet (44e).
2. A vacuum cleaner as claimed in claim 1, wherein the casing (44) is cylindrical and the slots or apertures (44e) extend around at least part of the circumference thereof.
3. A vacuum cleaner as claimed in claim 2, wherein the slots or apertures (44e) extend around at least half of the circumference of the casing (44).
4. A vacuum cleaner as claimed in any one of claims 1 to 3, wherein the casing (44) is transparent.
5. A vacuum cleaner as claimed in any one of the preceding claims, wherein the airflow is arranged to pass across or around the motor (50) to provide cooling.
6. A vacuum cleaner as claimed in any one of the preceding claims, wherein the separating apparatus (18) comprise at least one cyclone.



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(54) **CHARGING OF MOBILE DEVICES**

Publication Classification

(75) Inventor: **AVADIS TEVANIAN, JR.**, LOS
ALTOS HILLS, CA (US)

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(57) **ABSTRACT**

A system which enables battery powered devices such as notebook computers to efficiently charge smaller mobile devices such as music players, cell phones and PDAs using the power signals provided over their data connections is made more efficient by ensuring that the power to the small mobile device is not interrupted should the notebook computer otherwise go into a standby or low-power state. The presence of the small mobile device is known and any power-down capabilities of the notebook computer are limited, at least for the period where the small mobile device is being recharged. This detection can be done at any of the levels of software present in the notebook computer. This charging and not powering down can be further optimized by determining the particular device and its charging requirements or by having the device provide feedback as to its charge state.

(73) Assignee: **APPLE INC.**, CUPERTINO, CA
(US)

(21) Appl. No.: **12/204,000**

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Related U.S. Application Data

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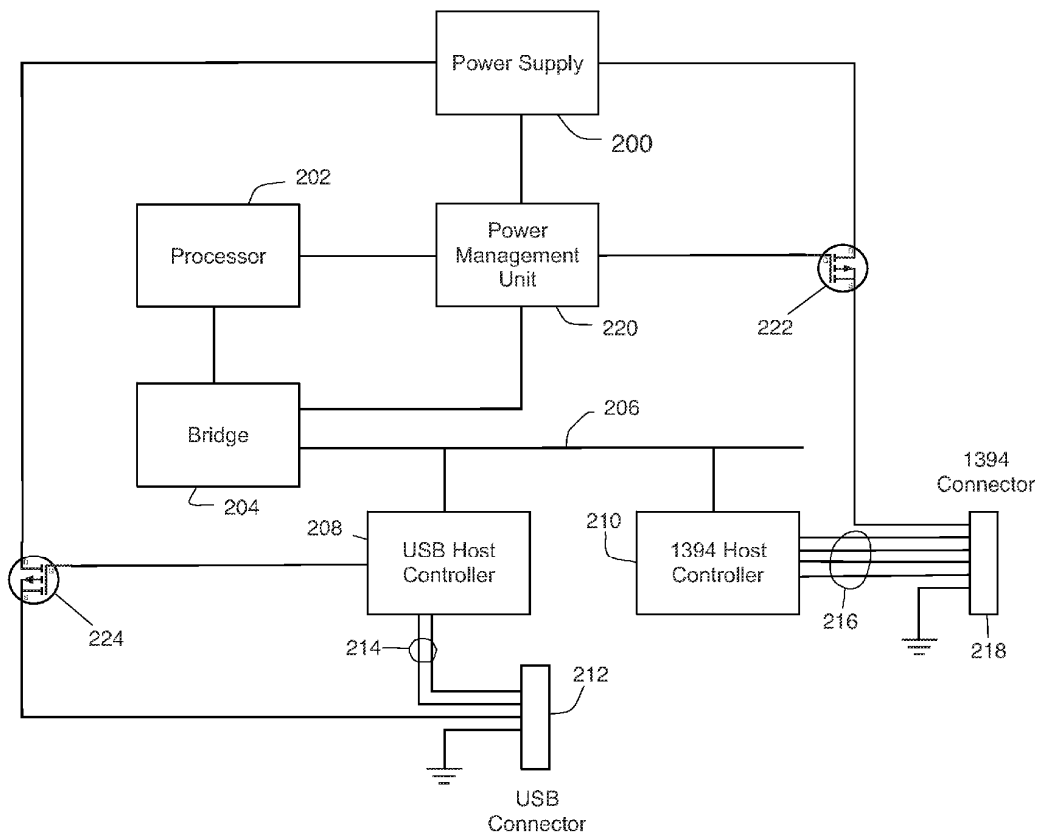
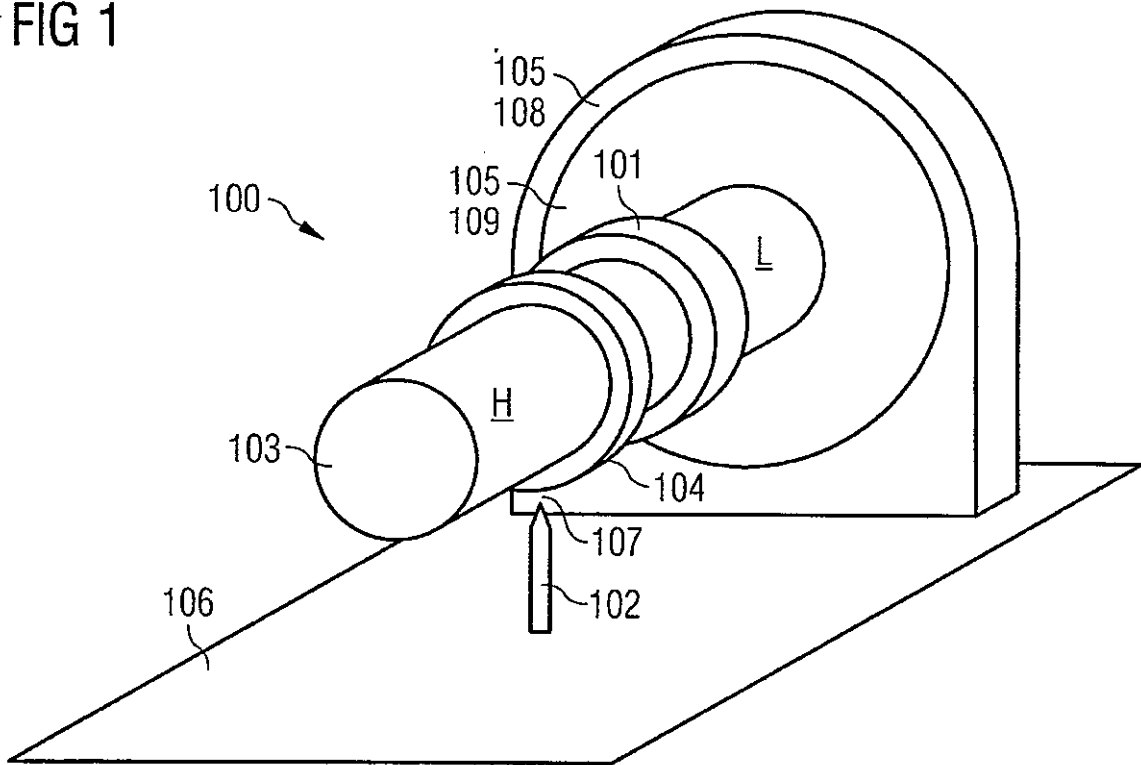


FIG 1



18. Sep. 2008

CLAIMS

1. A lightning protection system for protecting a device for exterior use, in particular a wind turbine, from damages based on a lightning stroke, the lightning protection system comprising:
- 5 a choke element (101);
wherein the choke element (101) is adapted for being mounted around a shaft (103) of the device in such a manner that a current flow through the shaft (103) causes a magnetic flux in the choke element (101).
- 10
2. The lightning protection system of claim 1, further comprising:
- 15 a diverting element (102);
wherein the choke element (101) is adapted for partitioning the shaft (103) in a high potential region (H) and a low potential region (L);
wherein the high potential region (H) is adapted to be exposed to an electrical current caused by the lightning stroke and wherein the low potential region (L) is adapted to be connected to an element of the device (105), which is to be protected;
- 20
- wherein the diverting element (102) is adapted for discharging at least a part of the current from the high potential region (H) of the shaft (103).
- 25
3. The lightning protection system of claim 2;
wherein the diverting element (102) is spaced from the shaft (103) for providing a spark gap (107).
- 30
4. The lightning protection system of claim 2 or 3, further comprising:
- a buffer element (104);
- 35 wherein the buffer element (104) is adapted for providing an electrical link between the shaft (103) and the diverting element (102).

Key Requirements

An invention is patentable if:

- it is novel – it must not be disclosed in any manner beforehand,
- it involves an inventive step,
- it is capable of industrial application, and
- a patent specification is filed which has an adequate description of how the invention can be implemented.

If an invention is early in an emerging field broad patents may be obtained. However, if the field is already established the patent is likely to be of narrower scope. The commercial importance of the development determines the value of the patent.

Novelty

This requirement deserves special mention. The invention must not be disclosed by the inventors or anyone else before filing a patent application.

Examples of disclosures are:

- scientific papers,
- published patent specifications,
- publicity brochures, and
- articles/web pages on the internet.

Assignment / Inventorship

On filing a patent application the applicant and inventors must be identified.

It is very important that the inventors properly assign their rights to the applicant before an application is filed. Although employment contracts may sometimes cover such elements it is nevertheless important to have a separate assignment for each patent application.

While in many cases the assignment document is not required by the Patent Office (for example Ireland), it is important that the assignment documents are held safely by the applicant.

The assignment issue is particularly important later on in due diligence proceedings in an asset purchase.

Identifying an Invention

To identify an invention, decide:

- What is the technical problem being addressed?
- How have previous attempts (“prior art”) worked?
- What is wrong with the prior art?

—————→ PROBLEM!

- What is your SOLUTION!
- Does the solution have novelty and an “inventive step”?

Searches

For example <http://patft.uspto.gov/>
 <http://ep.espacenet.com/advancedSearch?>
 <http://www.google.com/patents>

Major Fields to be searched:

Owner/Applicant

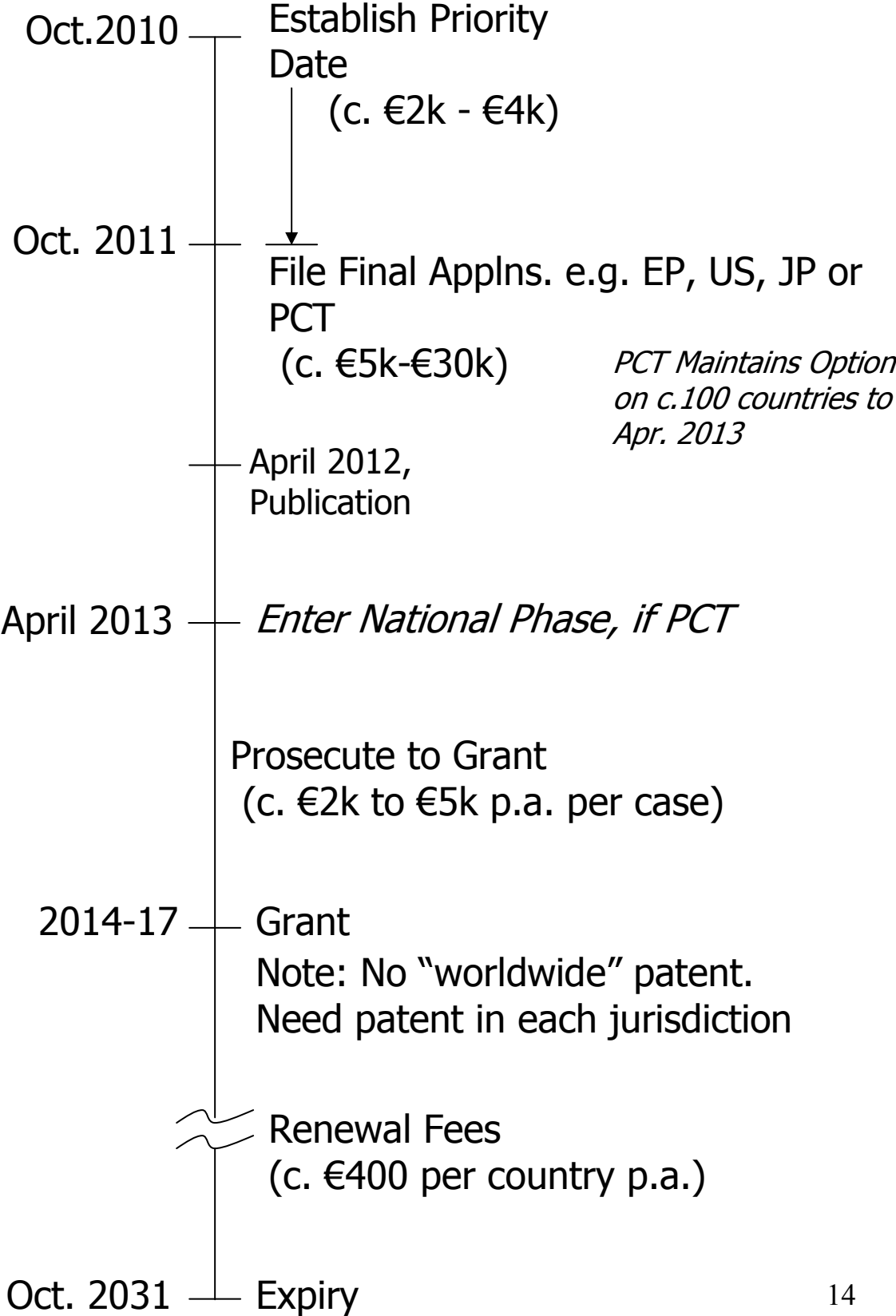
Inventor

Abstract/full specification text, for example:

_____ vacuum and (cleaner or clean or cleaning) and cyclone

Display: Full Abstract, sometimes with image.

TIMELINE DIAGRAM TO ILLUSTRATE MILESTONES



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Note on Company

John A. O'Brien & Associates is a firm of intellectual property consultants established in 1997, based in Blackrock, Dublin and having a permanent office in Cork. The main strength of the firm is an emphasis on providing a service to companies/individuals in Ireland to protect the fruits of research and development. The service involves working closely with client companies to:-

- advise on overall intellectual property strategy,
- obtain protection for new inventions as they arise, and
- advise on infringement and validity of third party patents.

We believe that it is important to work closely with our clients in a manner whereby a strong relationship is developed. In this way, clients feel free to discuss ideas with us and obtain advice from an early stage to help guide projects in the right direction from the intellectual property perspective.

Our European Patent Attorneys have the technical background to cover the electronics, mechanical, chemical, and micro-biological fields.

The philosophy which underlies our advice is that intellectual property is a commercial asset which needs to be protected according to commercial considerations.