

Protecting Simple Replacements by Patents (通过专利保护可更换耗材)



March 24, 2015
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Important to patent replacements (为可更换耗材申请专利非常重要)

Replacements bring long lasting sales, however,
they are more easily copied.

(可更换耗材带来长久、持续的销量, 但是, 它们更容易被抄袭)。

Focus patents and profits on “replacements.”

(可更换耗材的核心专利和利润)

ex. Laser beam printer ⇒ toner cartridge

(例如激光束打印机⇒墨粉盒)

Ink jet printer ⇒ ink cartridge

(喷墨打印机⇒墨水盒)

Replacements Business (耗材业)

- Laser beam printer (激光打印机)
 - Price of a printer (打印机价格): 80,000
 - Price of toner (墨粉价格): 120,000 / year

- Ink jet printer (喷墨打印机)
 - Price of printer (打印机价格): 30,000
 - Ink/paper (油墨/纸) : 30,000 / year

- Sell main body at a low price, and make profits from replacements.
(以低价格售卖主体, 从耗材受获利)

Add features to replacements for patents. (在耗材专利上增加特征)

Mere toner ... harder to patent
(仅仅是墨粉, 很难获得专利权)

Toner cartridge (with drum, IC) ... patentable
(墨粉盒(带有硒鼓, IC)可专利)

Mere ink ... harder to patent
仅仅是墨水, 很难获得专利权

Ink cartridge (with head, IC) ... patentable
墨水盒(带有喷头, IC)可专利

Design main body so as to require patented features of replacements.

(设计主体，以获得换耗材的专利特征)

If a replacement does not use a patented feature, main body does not work.

(如果可更换耗材没有使用专利特征, 则主体不能工作)

V. Categories for patenting replacements (V. 为可耗材申请专利的类别)

1. Featuring electrical connections
(以电连接为特征)
2. Featuring mechanical connections
(以机械连接为特征)
3. Providing a digital communication interface
(提供数字通信接口)
4. Installing a memory in a replacement
(在耗材内安装存储器)
5. Installing sensors in a replacement
(在耗材内安装传感器)

1. Featuring electrical connections (以电连接为特征)

JP2007-294234

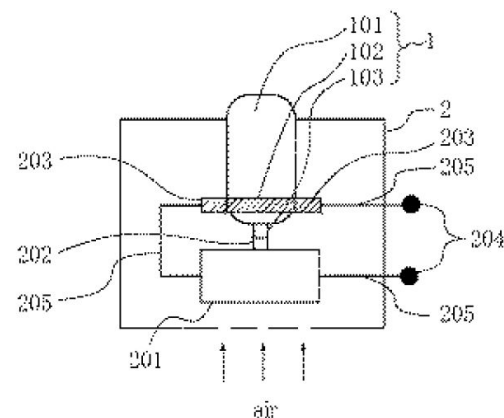
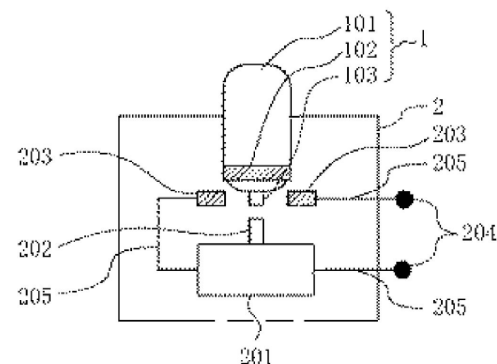
Applicant: Canon

申请人: 佳能

Filing Date: 2006.4.25 申请日: 2006.4.25

1. A fuel cartridge comprising:
a fuel storage having a fuel feed opening; and
a conductive region that electrically connects an
output terminal of a fuel cell body and a power
supply terminal of the fuel cell body ...

1、一种燃料盒，包括：
燃料存储箱，具有燃料馈入口；以及
传导区域，与燃料电池主体的输出端、以及燃料电池
主体的电源端电连接。。。



2. Featuring mechanical connections (以机械连接为特征)

JP2007-66756

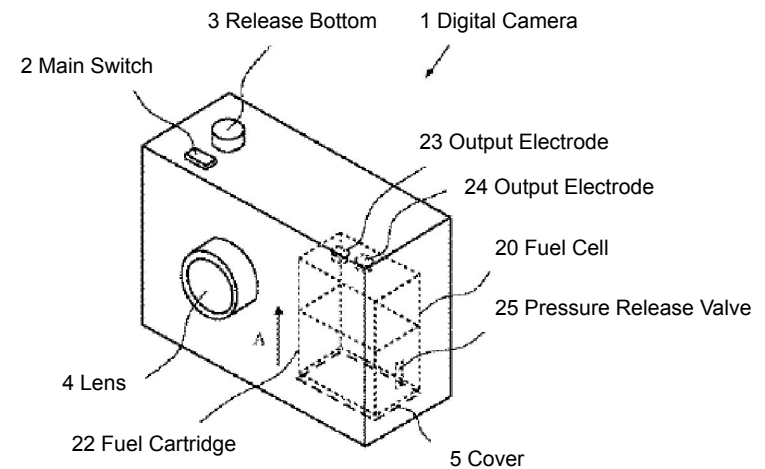
Applicant: Canon

申请人: 佳能

Filing Date: 2005.8.31 申请日: 2005.8.31

1. A fuel cartridge attached to a fuel cell that is inserted into an electric device, comprising
a pressure release valve provided in perpendicular direction to an insertion direction of the fuel cell into the electric device.
- 1、一种燃料盒，与插入电子设备的燃料电池相连，包括：
减压阀，沿着与燃料电池插入电子设备的方向垂直的方向设置。

Fig.1



3. Providing a digital communication interface(提供数字通信接口)

JP2008-53055

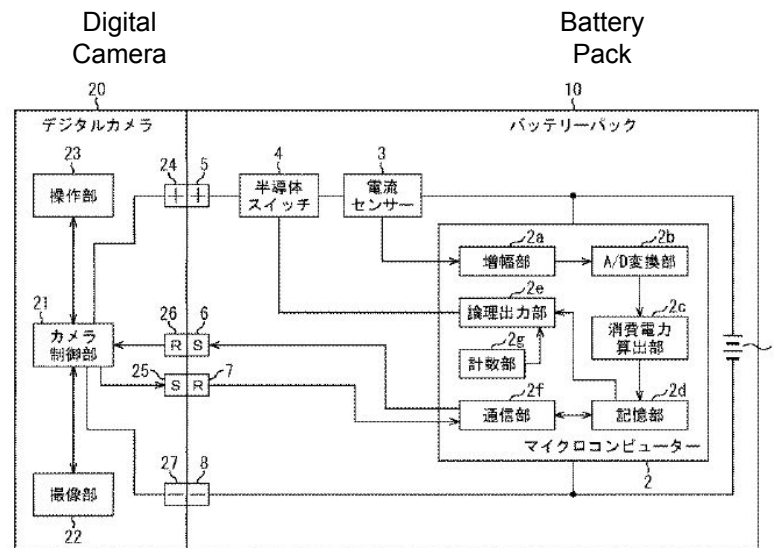
Applicant: Canon 申请人: 佳能

Filing Date: 2006.8.24 申请日

: 2006.8.24

1. A battery pack comprising: ...;
a battery for providing electricity to an electric device;
communication means for communicating with the electric device; ...
a controller for cutting the electricity to the electric device, when the communication is not established....

1、一种电池组, 包括:
用于向电子设备供电的电池;
与所述电子设备通信的通信机制; ...
控制器, 用于当通信未建立时, 切断向所述电子设备的供电...



4. Installing a memory in a replacement (在可更换耗材中安装存储器)

JP2005-174741

Applicant: Canon 申请人: 佳能

Filing Date: 2003.12.11 申请日: 2003.12.11

1. A fuel container comprising:
a fuel tank that stores fuel to be supplied to a fuel cell ...,
a memory for storing ... a remaining amount of the fuel ...
wherein the fuel container is detachable from the fuel cell.
- 1、一种燃料容器, 包括:
燃料罐, 用于存储即将被提供给燃料电池的燃料.....,
存储器, 用于存储....燃料的剩余量....其中所述燃料容器可从所述燃料电
池断开。

4. Installing a memory in a replacement (在可更换耗材中安装存储器)

What to store: 存储什么

Charged amount / histories, 充电量/历史纪录,

Consumption amount / histories, 消耗量/历史纪录

Temperature / temperature histories, 温度/温度历史纪录

Remaining amount, 剩余量

and

Anything else! 任何其他内容 !

As long as the main body requires the stored data,
replacements are protected. 只要主体需要所存储的数据,
可更换耗材就受到保护。

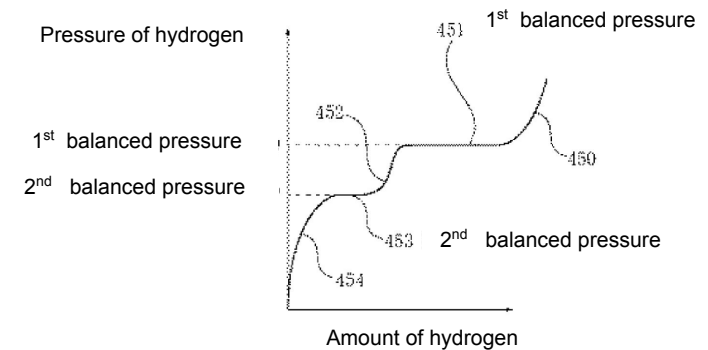
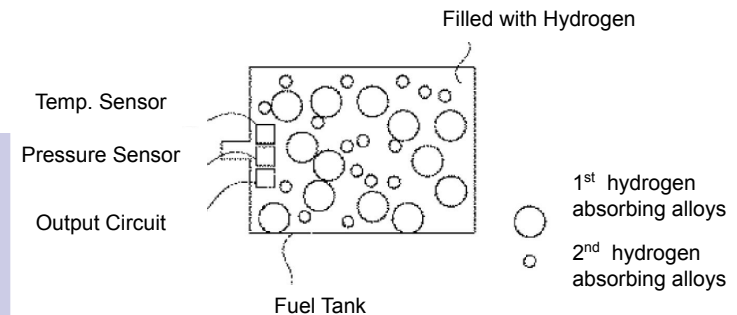
5. Installing sensors in a replacement (在可更换耗材中安装传感器)

JP2006-99984

Applicant: Canon 申请人: 佳能

Filing Date: 2004.9.28 申请日: 2004.9.28

1. A fuel cell that outputs a hydrogen remaining amount, comprising:
 - a tank that houses a plurality of hydrogen occlusion alloys with different hydrogen desorption properties;
 - a power generator ...;
 - a pressure detector for detecting a pressure of the hydrogen supplied to the power generator
- 1、一种可输出剩余氢量的燃料电池，，包括：箱部，用于容纳具有不同放氢特性的多种储氢合金；
发电部....；
压力检测单元，用于检测提供给所述发电部的氢的压力
.....。



Installing sensors in a replacement (在可更换耗材中安装传感器)

Considerations: 需要注意的事项:

What to sense. 感测什么

⇒ How to sense. 如何感测

⇒ Where to sense. 在哪里感测

⇒ How many areas to sense.

感测多少个区域

⇒ Differences of plural sensors.

多个传感器的区别

Remarks for patenting replacements (保护可更换耗材的注意事项)

1. Replacements are often made in China, Taiwan, etc. and imported to Europe and the US by small traders. 耗材通常在中国大陆、台湾等地方制造, 并通过小贸易公司进口到欧洲和美国
 - ⇒ Hard to pursue a number of small importers. 很难对大量的小进口商进行追踪
 - ⇒ Obtain patents in China, Taiwan, etc. 在中国大陆、台湾等获得专利权
 2. Unfair competition and the antitrust laws may apply. 可应用不公平竞争和反托拉斯法
 - ↓
 - × to exclude other companies or protect profits × 排除其它公司或者保护利润
 - to secure users or promote users' convenience ○ 保护用户或者提高用户的便利性
- Watch and control language in internal documents. 注意并控制内部文件中的语言

Reproduction of replacements (耗材的再生产)

When replacements may be reproduced by others,
consider Implied License and Patent Exhaustion.

当可更换耗材被其他人再生产时, 考虑默示许可和专利权穷竭。

Design replacements so that they cannot be reproduced.

Prohibit reproduction on the package. **设计可更换耗材, 使得它们不能被再生产。在包装上禁止再生产。**

Obtain patents on portions of replacements to be repaired or exchanged.

对可更换耗材待修理或调换的部分获得专利权。