

專利地圖 與分析工具應用

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- 成功大學機械工程碩士/機械工程學士

講座

- (中國北京)2009年度知識產權法律體系、戰略與保護培訓研討會研討會/整合量化分析與質性研究強化專利地圖的戰略性與戰術性運用
- (中國北京)專利地圖分析方法暨實戰操練高階培訓
- 台灣大學生技中心/智慧財產權保護、專利鑑定、侵權鑑定
- 國家衛生研究院/專利地圖
- 工研院/專利地圖全方位大攻略
- 金屬中心/專利地圖與迴避設計
- 生產力中心/研發經理人班/專利地圖
- 台灣技術交易市場TWTM/專利地圖
- 自強基金會/侵權鑑定與迴避設計
- 中華民國工業總會/專利檢索與分析
- 機器公會/專利檢索與分析

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內容大綱

1. 以專利地圖的起源與發展
2. 專利檢索方法與案例解析
3. 專利管理圖分析
4. 專利引證分析
5. 專利技術佈局分析
6. 法律狀態分析
7. claim分析
8. 專利組合分析

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專利地圖的起源與發展

- 專利地圖源自於日本，各種分析手法與應用模式蓬勃發展於台灣，目前正迅速擴散於亞洲。
- 台灣
 - 針對特定之研究課題，為了解其背後之機會或威脅，藉由正確地「蒐集」相關之專利資料，再將其重新「整理」、「呈現」、「分析」、「解釋」，並進而提出「推論」或「預測」，用以獲得有價值之專利知識。
 - 藉由專利知識，使能在不確定的情況下，做成有效與合理的決策。

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專利地圖

Garbage in, garbage out.

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專利地圖的分析方法-1

- 專利檢索
 - To get **right** patents
 - Garbage in, garbage out.
- 專利管理圖
 - 發展趨勢
 - 競爭地區、競爭公司、key person
- 專利引證圖
 - Key patents(高影響力專利、高創造性專利)
 - 技術發展脈絡(Skeleton)
- 專利技術圖
 - 技術分佈
 - 技術功效佈局矩陣
 - 研發與市場策略
- Claim圖
 - Design around; Invent around.

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專利地圖的分析方法-2

- 法律地圖
 - 法律狀態(Legal Status)
 - 繳費維護狀態、轉讓、授權、許可狀態
 - 家族地圖(Family Map)
 - File wrapper
 - 蒐集禁反言證據
 - Infringement analysis
 - Design around; invent around.
- 訴訟地圖
 - Patents found invalid against one party are unenforceable against another party
 - 兩造攻防策略
 - 對付Patent Troll

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專利地圖的分析方法-3

- 財務地圖
 - 專利強度評估(Patent Evaluation)
 - 專利鑑價(Patent Valuation)
- 科技預測
 - 以專利數量預測未來技術發展
- 技術領域雖有不同, 專利地圖的分析方法相同。
- 專利地圖是一種選擇, 不是一種規則。
 - 分析方法很多, 需選擇最合適有效的分析方法。
- 軟件只是專利地圖的一部分, 不是全部。
- **分析師的專業是其中關鍵。**

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專利要件

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專利

- 為鼓勵、保護、利用發明與創作, 以促進產業發展。
 - 保護申請人的權利
 - 保障產業與社會大眾知的權利
- 專利種類(各國規定不一樣)

- 發明(TW)	發明(CN)	特許(JP)	Utility(US)
- 新型(TW)	實用新型(CN)	實用新案(JP)	Utility(US)
- 新式樣(TW)	外觀(CN)	意匠(JP)	Design(US)
- 申請後經主管機關審查公告後始具有權利
 - 發明、新式樣：實體審查(專利三要件)
 - 產業利用性、新穎性、進步性
 - 新型：形式審查
- 發明申請案申請十八個月後早期公開(TW、CN、JP、US、EP)
 - 早期公開案並不具有專利權

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(19) **United States**
(12) **Patent Application Publication** (10) Pub. No.: **US 2002/0033132 A1**
Kim (43) Pub. Date: **Mar. 21, 2002**

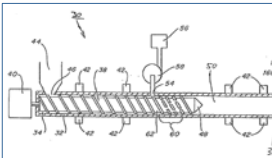
(54) **CRUSH-RESISTANT POLYMERIC MICROCELLULAR WIRE COATING**
No. 60/024,623, filed on Aug. 27, 1996 and which is a non-provisional of provisional application No. 60/026,889, filed on Sep. 23, 1996.

(76) Inventor: **Roland V. Kim, Somerville, MA (US)**
Correspondence Address: **Timothy J. Oyer, Wolf, Greenfield & Sacks, P.C., 600 Atlantic Avenue, Boston, MA 02210 (US)**

(21) Appl. No.: **09/726,842**
(22) Filed: **Nov. 30, 2000**

Related U.S. Application Data
(60) Division of application No. 09/060,499, filed on Apr. 15, 1998, which is a continuation-in-part of application No. 09/258,625, filed on Feb. 26, 1999, now Pat. No. 6,284,210, which is a continuation of application No. PCT/US97/15088, filed on Aug. 26, 1997 and which is a non-provisional of provisional application

Publication Classification
(51) Int. Cl.⁷ **B05C 3/02**
(52) U.S. Cl. **118/407**



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- 1. A system for producing microcellular polymeric material on a surface of a data communications element, comprising:
 - an extruder having an inlet at an inlet end thereof designed to receive a precursor of microcellular material,
 - an outlet at an outlet end thereof designed to release microcellular material, and
 - an enclosed passageway connecting the inlet with the outlet constructed and arranged to contain a product of the mixture of a precursor of microcellular material and a blowing agent in a fluid state within the passageway and to advance the product as a fluid stream within the passageway in a downstream direction from the inlet end toward the outlet end;
 - a nucleating pathway associated with the passageway capable of nucleating the product in the passageway,
 - wherein the extruder is adapted to receive a data communications element and to position the data communications element in communication with the passageway.

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Date	Transaction Description
07-01-2003	Mail Abandonment for Failure to Respond to Office Action
06-27-2003	Abandonment for Failure to Respond to Office Action
12-17-2002	Mail Final Rejection (PTOL - 326)
11-18-2002	Final Rejection
09-03-2002	Data Forwarded to Examiner
07-09-2002	Response after Non-Final Action
07-09-2002	Request for Extension of Time - Granted
07-22-2002	Information Disclosure Statement (IDS) Filed
01-31-2002	Mail Non-Final Rejection
12-12-2001	Non-Final Rejection
04-03-2001	Case Docketed to Examiner in GAU
03-27-2001	Case Docketed to Examiner in GAU
02-21-2001	Application Dispatched from OPIE
01-18-2001	IPW Scan & PACR Auto Security Review
01-18-2001	Correspondence Address Change
01-18-2001	Correspondence Address Change
11-30-2000	Initial Exam Team rin

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專利之權利

- 排他性
 - 專利權係，專有排除他人未經其同意而製造、販賣、使用或為上述目的而進口該物品之權。未當然包括實施專利之權。
 - (中華民國專利法第五十六條)物品專利權人，除本法另有規定者外，專有排除他人未經其同意而製造、為販賣之要約、販賣、使用或為上述目的而進口該物品之權。方法專利權人，除本法另有規定者外，專有排除他人未經其同意而使用該方法及使用、為販賣之要約、販賣或為上述目的而進口該方法直接製成物品之權。
 - (35 U.S.C. 154)Every patent shall contain a short title of the invention and a grant to the patentee, his heirs or assigns, of the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States, and, if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States, or importing into the United States, products made by that process, referring to the specification for the particulars thereof.

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實體審查之專利要件

- 產業應用性
 - 具有再現性
 - (專利法第26條)發明說明應明確且充分揭露，使該發明所屬技術領域中具有通常知識者，能瞭解其內容，並可據以實施。
- 新穎性
 - 申請專利之發明於申請前已見於刊物、已公開使用或已為公眾所知悉者，不得取得發明專利(專22.I)。
 - 申請專利之發明與申請在先而在其申請後始公開或公告之發明或新型專利申請案所附說明書或圖式載明之內容相同者，亦不得取得發明專利(專23)。
- 進步性
 - 申請專利之發明為該發明所屬技術領域中具有通常知識者依申請前之先前技術所能輕易完成者，不得取得發明專利(專22.IV)

2009/5/12, 19 車慧中, 台灣大學「專利地圖與分析工具應用」-15-
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專利要件-新穎性

- 申請專利範圍中所載之發明未構成先前技術的一部分時，稱該發明具新穎性。
- 新穎性之審查原則
 - 逐項審查
 - 單獨比對

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專利要件-進步性

- 雖然申請專利之發明與先前技術有差異，但該發明之整體係該發明所屬技術領域中具有通常知識者依申請前之先前技術所能輕易完成時，稱該發明不具進步性。
- 輕易完成與顯而易知
 - 輕易完成：該發明所屬技術領域中具有通常知識者依據一份或多份引證文件中揭露之先前技術，並參酌申請時的通常知識，而能將該先前技術以「轉用」、「置換」、「改變」或「組合」等方式完成申請專利之發明者。
 - 顯而易知：指該發明所屬技術領域中具有通常知識者以先前技術為基礎，經「邏輯分析」、「推理」或「試驗」即能預期申請專利之發明者。
 - 顯而易知與能輕易完成為同一概念。

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專利要件-進步性

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TW專利說明書結構

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專利說明書結構

- 專利檢索與分析前必須先瞭解專利說明書結構
 - 庖丁解牛、游刃有餘
 - 不同的專利資料庫收錄的專利說明書內容不同
 - 不同地區專利的專利說明書結構不同
 - 正確瞭解專利說明書結構才能選擇正確的專利資料庫、在適當檢索欄位裡輸入正確的檢索條件。
 - 正確瞭解專利說明書結構才能正確的分析專利。

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TW專利說明書結構

- 說明書結構
 - 一、專利名稱
 - 二、申請人
 - 三、發明人
 - 四、聲明事項
 - 五、中文摘要
 - 六、英文摘要
 - 七、指定代表圖
 - 八、化學式
 - 九、發明說明
 - 十、申請專利範圍
 - 十一、圖示
- 可用之檢索欄位
 - 一、專利名稱
 - 二、申請人
 - 三、發明人
 - 四、中文摘要
 - 五、申請專利範圍
 - 六、圖示
 - 申請號
 - 公告號
 - 證書號
 - 國際專利分類號(由審查官決定)
 - 代理人
 - 公報卷期

無法完整檢索!!!
(發明所屬技術領域)
(先前技術)、(發明概述)
(實施方式之詳細說明)

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TW專利資料庫收錄範圍

資料項目	收錄範圍	筆數
專利會誌資料	民國39年-民國 98年5月1日 (第 36 卷/第 13 期)	831437
申請專利範圍	民國63年-民國 98年5月1日 (第 36 卷/第 13 期)	762611
摘要	民國79年-民國 98年5月1日 (第 36 卷/第 13 期)	704385
翻譯資料	民國63年-民國 98年5月1日 (第 36 卷/第 13 期)	502105
說明書全文資料	民國89年-民國 89年5月1日 民國90年-民國 94年12月21日 民國96年-民國 98年7月11日 民國97年-民國 98年4月21日	349182
公報影像	民國39年-民國 98年5月1日 (第 36 卷/第 13 期)	831437
說明書全文影像	民國79年-民國 98年5月1日 (第 36 卷/第 13 期)	705577

註: 資料更新頻率每月三次

資料項目	資料範圍	筆數
專利會誌資料	民國22年5月1日-民國 98年5月1日 (第 7 卷/第 9 期)	227344
摘要	民國22年5月1日-民國 97年12月16日	227339
說明書全文資料	民國22年5月1日-民國 98年5月1日 (第 7 卷/第 9 期)	129823
公報影像	民國22年5月1日-民國 98年5月1日 (第 7 卷/第 9 期)	227344
說明書全文影像	民國22年5月1日-民國 98年5月1日 (第 7 卷/第 9 期)	227344

註: 資料更新頻率每月二次

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發明專利說明書格式

九、發明說明：

【發明所屬之技術領域】。

本發明係有關於一種可連接兩種導電端子之電氣絕緣連接器，用以連接一扁平狀導電端子與一具有絕緣皮且導電芯露出之端子，特別指端子連接後的連接器之導電端子不外露，具有絕緣效果者。

【先前技術】。

US4298243 係為一種可連接兩種導電端子之電氣絕緣連接器之先前技術，參考第 1A 圖，其絕緣殼體 5' 之內部僅具有一個導電結構 6'，僅以一個導電結構 6' 連接一個扁平狀導電端子與一個芯狀導電端子，其中芯狀導電

Prior arts
Prior art 有哪些不好

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發明專利說明書格式

【發明內容】。

為了解決上述之問題，本發明提供一種導電端子之電氣絕緣連接器，該電氣絕緣連接器包括有一具有角度的絕緣殼體、一導電結構與可變形之束縛套圍，其中，絕緣殼體彎折的兩端具有第一開口與第二開口，殼體內部形成一貫通之通路，在第一開口側定義為第一通路，在第二開口側定義為第二通路；一導電結構可容置於該第一通路中，長度略短於該第一通路，具有一朝向第一開口之扁平端子接合部，以及一個朝向第二開口之壓合端；可變形之束縛套圍呈圓柱狀，以一體成形製成，可容置於該第二通路中，長度略短於該第二通路，具有一朝向第二開口之芯狀端子接合部，以及一個朝向一導電結構壓合端之束縛端；其中，絕緣殼體第一通路之側

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發明專利說明書格式

因此，本發明之主要目的在於提供一種可連接兩種導電端子之電氣絕緣連接器，其具有較佳之裝配容易度。

本發明之另一目的在於提供一種可連接兩種導電端子之電氣絕緣連接器，其端子與連接器具有較佳之結合效果者。

本發明之又一目的在於提供一種可連接兩種導電端子之電氣絕緣連接器，其內部之導電結構較佳之結合效果者。

本發明之再一目的在於提供一種可連接兩種導電端子之電氣絕緣連接器，其內部之導電結構具有較佳之結構強度者。

本發明之再一目的在於提供一種應用於可連接兩種導電端子之電氣絕緣連接器之絕緣殼體，具有可開閉之窗口結構，以提升裝配效果者。

專利功效一定要寫的啦!!!

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發明專利說明書格式

說明書最多的部分寫幾個實施例

【實施方式】。

由於本發明係揭露一種電氣絕緣連接器，其中所利用到的一些電線結構之基本元件與電器絕緣原理，已於先前技術中詳細揭露，故以下文中之說明，不再作完整描述。同時，以下文中所對照之圖式，係表達與本發明特徵有關之結構示意，並未亦不需要依據實際尺寸完整繪製，蓋先說明。

請參見第三圖，本發明之較佳實施例。

在此較佳實施例中之電氣絕緣連接器1主要包括有一具有角度彎折的絕緣殼體2、一導電結構3與一可變形之夾持套圈4。

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發明專利說明書格式

【圖式簡單說明】

圖一所示為面板模組與顯示控制器間以習知 TTL 介面做為傳輸介面之液晶顯示器方塊示意圖；

圖二所示即為圖一 TTL 介面 120 各信號的時序圖；

【圖號說明】

100-顯示控制器；102-縮放單元；110-面板模組；
112-時序控制器；114-行驅動器；116-列驅動器 118-液晶面板；113-行控制信號；115-列控制信號；
120-TTL 介面；300-顯示控制器；302-縮放單元；304-時序控制器；303-TTL 輸出信號 303；310-面板模組；
312-行驅動器；314-列驅動器；316-液晶面板；311-行控制信號；313-列控制信號；320-TTL/TCO 介面；

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發明專利說明書格式

拾、申請專利範圍：

1. 一種顯示控制裝置，包括：
 - 控制器，用以提供一模式控制信號；
 - 縮放單元，用以產生一第一介面信號；
 - 時序控制器，係將該第一介面信號轉換為一第二介面信號；
 - 選擇器，係根據該模式控制信號，選擇該第一介面信號與該第二介面信號中之一者，成為一參考信號輸出；以及
 - 介面電路，係根據該模式控制信號，將參考信號轉換為一輸出信號；

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專利檢索方法與實例解析



Patent search is an ART,
not only a science.

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Patent Search is an art.

- 專利語言的特殊性
 - 申請專利範圍(claim)
 - 上位用語(擴大保護範圍)、下位用語(實施例)
 - Keywords未必代表技術特徵
- 技術未有統一的名稱
 - (同義字、詞性變化、單複數、拼法...)
 - 刻意避開Keywords的專利
- 資料庫的缺陷
 - 資料收錄的主題範圍/國家範圍/收錄時間/檢索欄位
- 複雜的企業競爭合作關係，導致專利權人名稱不易固定。
 - 公司檢索，須考慮該公司的各種拼法/子公司/母公司等。
- **專利檢索的品質係決定於檢索資料庫的品質與完整性，以及檢索人員的專業知識。**

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檢索的目標與效能

- 確認需求
 - 主題?
 - \$\$\$?
 - 時間?
 - 人力?

Patent search is an **ART**, not only a science.

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專利檢索技巧

- 確認需求: RD
 - 檢索主題、檢索目的、經費限制、時間限制、完整/精確
- 列出技術關鍵字: RD
 - RD須具備基礎的專利知識
 - 利用關鍵字找出**部分專利**
 - Backward references & Forward references
- 列出檢索關鍵字
 - 各種拼法、詞類變換、同義詞、上位用語、下位用語等。
 - 技術文獻並不一定有用
 - 善用網路資源
 - 利用萬用字元(*、?、\$)、涵蓋字形的可能變化。
 - 不同資料庫的萬用字元不相同, 使用方式亦不相同
 - 片語型關鍵字要特別小心處理
 - 利用 IPC/UPC, 找出使用不同關鍵字或刻意規避關鍵字的專利。
 - 僅用IPC/UPC反而會造成遺漏

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專利檢索技巧

- 選定專利資料庫
 - 免費 -> 付費
 - 充分瞭解資料庫的限制與功能
 - 選用好的、可靠的資料庫
- 擬定檢索策略 -> 進行檢索 -> 資料下載
- 專利Review (by RD)
- 修正檢索策略 -> 再進行檢索 -> 資料下載
- 專利Review (by RD)
- 修正檢索策略, 再進行檢索
- **訂定停止損失點**
 - Review 的次數
 - 檢索的經費
 - 檢索的時間

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中華民國 專利資訊檢索系統

免費

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中華民國專利資訊檢索系統

經濟部智慧財產局

中華民國專利資訊檢索系統

本系統資料僅供參考, 不作為登記之依據。
所有資料以經濟部智慧財產局公佈為準。

台北市中興路二段105號3樓
 TEL: (02)27380007
 FAX: (02)27352656, 27352920
 專利服務台: 23767607, 23767608
 資料服務熱線: 23767164, 23767165

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中華民國專利資訊檢索系統
經濟部智慧財產局

最新消息

專利資料涵蓋筆數

資料項目	資料範圍	筆數
專利公告	JG0301~JG06 97/07/11 (第 35 卷) 19 期	784194
專利公告	JG0301~JG06 97/07/11 (第 35 卷) 19 期	730217
專利公告	JG0301~JG06 97/07/11 (第 35 卷) 19 期	667827
專利公告	JG0301~JG06 97/07/11 (第 35 卷) 19 期	451222
專利公告	JG0301~JG06 94/04/21 (第 32 卷) 19 期	195376
專利公告	JG0301~JG06 97/07/11 (第 35 卷) 19 期	790644
專利公告	JG0301~JG06 97/07/11 (第 35 卷) 19 期	609271

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中華民國專利資訊檢索系統
經濟部智慧財產局

專利檢索 Help

專利類型: 發明 新型 創式樣 公報類型: 公開公報 專利公報

布林檢索

邏輯檢索

表格檢索

索引瀏覽

2009/5/12, 19 車慧中，台灣大學「專利地圖與分析工具應用」-38-
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Advantest 台灣專利

檢索案例

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ADVANTEST

Advantest Corporation
Global Headquarters: Tokyo, Japan
About Advantest Corporation
Worldwide Product Overview: ATE, Instruments
Worldwide Sales Locations | Contact Us

Advantest America
Regional Headquarters: Santa Clara, California
About Advantest America | Products | Support
News & Releases | Investors | Events
Careers | Contact Us | Instruments | e-Biz Login

Advantest Europe
Regional Headquarters: Munich, Germany

Advantest Asia
Taiwan | Singapore | Korea | China

International Press Releases

2009/5/12, 19 車慧中，台灣大學「專利地圖與分析工具應用」-40-
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ADVANTEST TAIWAN

ABOUT ADVANTEST | INVESTORS | PRODUCTS | SUPPORT | NEWS | CAREERS

What's News

- 日商愛德萬Test Handler相關專利, 韓國已有初步裁決 (2004/3/15)
- Decision on the Information of Advantest's Test Handler Patents in Korea(2004/3/15)
- Advantest's Test Handler Patent Infringing in Taiwan Petition of Preliminary Injunction Filed(English) (2004/2/9)
- 日商愛德萬Test Handler 相關專利在台灣遭他人侵權, 愛德萬已向法院申請禁制令(2004/2/9)
- Notice of Merger to Customer (English)(2004/8/14)
- Notice of Merger to Vendor (Chinese)(2004/8/14)
- Notice of Merger to Vendor (English)(2004/8/14)
- Notice of Merger to Customer (Chinese)(2004/8/14)

2009/5/12, 19 車慧中，台灣大學「專利地圖與分析工具應用」-41-
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共 173 筆，本頁顯示第 1 至 10 筆， 依公告日期 | 遞減 | 排序

第 1 筆 of 本國專利發明公開公報

資料檢閱範圍

專利類型: 發明

公告公報號: 200635231

專利名稱: 根據基準信號以產生信號的部週圍置 = [pubd]

專利影響: [圖]

公告公開日期: 2006/10/01

申請日期: 2006/03/22

申請案號: 095109798

國際分類號: H03L-007/093

發明人/地址/國家: 木村浩樹 KIMURA, HIROKI; 愛德萬測試股份有限公司 ADVANTEST CORPORATION 日本

申請人/地址/國家: 愛德萬測試股份有限公司 ADVANTEST CORPORATION 日本

專利代理人: 蕭裕慶

共 189 筆，本頁顯示第 1 至 10 筆， 依公告日期 | 遞減 | 排序

2009/5/12, 19 車慧中，台灣大學「專利地圖與分析工具應用」-42-
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第 54 筆 of 本國專利發明公開報

專利類型 發明
 公告/公開號 200634321
 專利名稱 電子元件處理裝置用之插合件、選擇、測試用之插座事件及電子元件處理裝置
 專利影象 [圖]

公告/公開日期 2006/10/01
 申請日期 2005/11/21
 申請案號 094140775
 國際分類號 G01R-031/26
 發明人/地址/國家 相澤光範 MITSUNORI AZAWA ;
 伊藤明彦 AKIHIKO ITO
 申請人/地址/國家 阿達維斯特股份有限公司 ADVANTEST CORPORATION 日本
 專利代理人 吳文政

第 66 筆 of 本國專利發明公開報

2009/5/12, 19 車慧中, 台灣大學「專利地圖與分析工具應用」-43-
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第 24 筆 of 本國專利發明公開報 (2004-迄今)

專利類型 發明
 公告/公開號 I258014
 專利名稱 用於以高速事件為基礎之測試系統的事件處理設備及方法
 專利影象 [圖]

公告/公開日期 2006/07/11
 申請日期 2002/12/23
 申請案號 091137042
 國際分類號 G01R-031/26
 發明人/地址/國家 古爾 高倫斯 GOMES, GLEN A. ;
 亞瑟 湯普生 ARTHUR
 申請人/地址/國家 艾達維斯特公司 ADVANTEST CORPORATION 日本
 專利代理人 吳文政 臺北中山區南京東路二段12號7樓

第 63 筆 of 本國專利發明公開報

2009/5/12, 19 車慧中, 台灣大學「專利地圖與分析工具應用」-44-
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第 8 筆 of 本國專利發明公開報 (2004-迄今)

專利類型 新型
 公告/公開號 M276272
 專利名稱 裝置的燈單元
 專利影象 [圖]

公告/公開日期 2005/09/21
 申請日期 2001/01/20
 申請案號 093216407
 國際分類號 G06F-013/00 ; G09C-001/00
 發明人/地址/國家 荒川 前雄 ARAKAWA, NORIO ;
 岩倉 雅 MASAYUKA
 申請人/地址/國家 前途測試股份有限公司 ADVANTEST CORPORATION 日本
 專利代理人 吳文政 臺北中山區南京東路二段24號7樓

第 110 筆 of 本國專利發明公開報

2009/5/12, 19 車慧中, 台灣大學「專利地圖與分析工具應用」-45-
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第 7 筆 of 本國專利發明公開報 (2004-迄今)

專利類型 發明
 公告/公開號 I238256
 專利名稱 半導體元件測試方法及其裝置
 專利影象 [圖]

公告/公開日期 2005/08/21
 申請日期 2001/01/16
 申請案號 090100962
 國際分類號 G01R-031/26 ; G01R-031/19 ; G01R-031/3183
 發明人/地址/國家 吳文政
 申請人/地址/國家 阿達維斯特股份有限公司 ADVANTEST CORPORATION 日本
 專利代理人 吳文政 臺北中山區南京東路二段12號7樓

第 97 筆 of 本國專利發明公開報

2009/5/12, 19 車慧中, 台灣大學「專利地圖與分析工具應用」-46-
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第 3 筆 of 本國專利發明公開報 (2004-迄今)

專利類型 發明
 公告/公開號 00591460
 專利名稱 整合與自動化作業之方法及系統
 專利影象 [圖]

公告/公開日期 2004/06/11
 公報卷期 3117
 申請日期 2002/08/06
 申請案號 091117637
 國際分類號 G06F-017/00
 發明人/地址/國家 應山明 YANG, SEN HO ;
 胡志峰 HU, CHIH FENG ;
 黃資賢 HUANG, CHIH YUNG ;
 鄧世長 MAO, SHIH MIN
 申請人/地址/國家 旺宏電子股份有限公司 MACRONIX INTERNATIONAL CO., LTD.

第 528 筆 of 本國專利發明公開報

2009/5/12, 19 車慧中, 台灣大學「專利地圖與分析工具應用」-47-
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第 1 圖顯示的學習知識庫所使用的 Advantest 系統之架構方塊圖；
 第 2 圖顯示的根據本發明之一較佳實施例之系統之架構方塊圖；
 第 3 圖顯示的根據本發明之一較佳實施例之整合與自動化作業之方法之步驟流程圖；以及
 第 4A-4C 圖顯示的是根據本發明之一較佳實施例之整合與自動化作業之方法之圖形介面

第 2 筆 of 本國專利發明公開報 (2002-2003)

專利類型 新型
 公告/公開號 00505234
 專利名稱 積體電路測試機台用反射片
 專利影象 [圖]

公告/公開日期 2002/10/01
 申請日期 2001/05/15
 申請案號 090207854
 國際分類號 G01R-003/00
 發明人/地址/國家 江坤勇 ;
 林勇志
 申請人/地址/國家 聯南科技股份有限公司 新竹市科學工業園區力行三路二號 中華民國
 專利代理人 陳冠誠 台北市博愛路八十號六樓
 摘要 本創作有關於一種積體電路 IC 測試機台用反射片,其係在用以將 IC 的進氣孔蓋至固定溫度後進行 IC 測試之 IC 測試機台用反射片 ADVANTEST 之 M6741A 處理機台用反射片

資料庫選擇 → 回查詢畫面 → 索引瀏覽 → 分類瀏覽 →

第 528 筆 of 本國專利發明公開報

2009/5/12, 19 車慧中, 台灣大學「專利地圖與分析工具應用」-48-
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檢索結果

- Advantest : 173
- 愛德萬測試 : 189
- 阿德潘鐵斯特 : 66
- 艾德文斯特 : 63
- 前進測試 : 110
- 阿杜凡泰斯特 : 97



- 上述聯集 : 528

2009/5/12, 19 車慧中, 台灣大學「專利地圖與分析工具應用」-49-
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思考.....

- Why? Why? Why?.....
- The first why?
 - 為什麼用Advantest檢索的數量少於用中文公司名稱檢索的數量?
- The second why?
 - 相同的方法適用於中國國家知識產權局專利資料庫嗎?

2009/5/12, 19 車慧中, 台灣大學「專利地圖與分析工具應用」-50-
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US專利說明書結構



2009/5/12, 19 車慧中, 台灣大學「專利地圖與分析工具應用」-51-
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United States Patent [19] [11] Patent Number: **5,344,140**

第一發明人 Anderson [45] Date of Patent: *** Sep. 6, 1994**

專利名稱 [54] **GOLF CLUB HEAD AND METHOD OF FORMING SAME.**

發明人 [75] Inventor: Donald A. Anderson, 6000 Werner Ave., #150, Huntington Beach, Calif. 92649

專利權人 [73] Assignee: Donald A. Anderson, Huntington Beach, Donald J. C. Sun, San Diego, both of Calif.; a part interest

專利權期限 [1] Notice: The portion of the term of this patent subsequent to Jan. 18, 2008 has been disclaimed.

申請號 [21] Appl. No.: 897,161

申請日 [22] Filed: Dec. 28, 1992

專利家族資訊 [53] Continuation-in-part of Ser. No. 896,341, Dec. 13, 1991, Pat. No. 5,261,663, which is a continuation-in-part of Ser. No. 549,973, Jul. 9, 1990, Pat. No. 5,094,332, which is a continuation-in-part of Ser. No. 492,971, Mar. 11, 1990, Pat. No. 5,024,437, which is a continuation-in-part of Ser. No. 394,039, Jan. 12, 1989, abandoned.

國際專利分類 [51] Int. Cl.⁵ A63B 53/04

美國專利分類 [52] U.S. Cl. 273/78; 273/173; 273/167 R; 273/167 F; 273/167 R-77 A; 273/77 R; 78, 164.1, 193 R, 194 R, 162 R

審查官之前案檢索分類

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Primary Examiner—Vincent Millin

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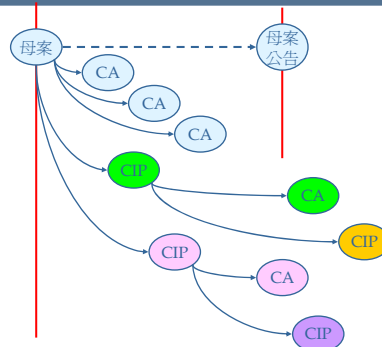
美國專利制度

- 專利申請後進行實體審查，審查通過之後公告。
- 發明
 - 1995/6/8前，專利權期間為17年，自公告日起算。
 - 1995/6/8起，專利權期間為20年，自申請日起算。
 - 1995/6/8後已依舊法發給證書，專利權仍存在者，得由專利權人自由選擇依新法或舊法計算其專利權期間。
 - 專利公告號N,NNN,NNN
- 早期公開制
 - 2000/10/29實施早期公開，申請日/優先權日起18個月後公開，同步進行實體審查
 - 早期公開號YYYYN,NNN,NNNA1
 - 早期公開前已審查公告之專利號**N,NNN,NNNB1**
 - 早期公開後才審查公告之專利號**N,NNN,NNNB2**

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CA & CIP



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C.A.

- continuation application 繼續申請(CA)
 - 基於「周邊限定主義」的精神
 - 申請專利範圍係申請人所主張專利保護之創作範圍，擴張解釋則不予承認，凡是不包含於申請專利範圍內而記載於說明書上之技術內容，乃為專利權效力所不及。
 - 同一專利申請人以先前已向專利局提交之前一項未公告之母案(pending application)為根據，再向專利局提出另一項申請(說明書內容完全相同)，這項申請就叫做CA。
 - CA通常是為了修改母案claim、提出母案未主張的claim，或提供有關發明專利性的證據。
 - CA擁有母案的優先權日(有利於審查)。專利權期限亦與母案相同。
 - 如果CA案包含完整的母案claims，可以放棄母案，但是亦擁有母案的優先權日。
 - CA可以在母案申請審查過程中提出，也可以在母案被最終駁回或在向申訴委員會或法院上訴失敗後提出。專利局對CA會進行像母案一樣的實體審查。

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C.I.P.

- continuation-in-part application 部份繼續申請(CIP)
 - 和CA相類似，但是CIP中會增加母案中未曾公開過的新要件(new matter)。
 - 提出CIP的主要原因，通常是由於對母案做了改良，所以申請人提交CIP，來對母案加以增補修改。
 - 如果CIP案包含完整的母案說明書內容與claims，可以放棄母案，但其中母案為依據的claims，能擁有母案的優先權日。
 - CIP增加的其他主題，只能獲得CIP的實際申請日期。

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USPC

- USPC創設於西元1803年。
- 創設時只設有16個主類(Class)，目前USPC之分類表(Class schedule)約有四百五十個主類和將近十六萬個次類(Subclass)。
- 涵蓋的範圍除了發明專利，尚包括工業設計與植物專利。
- 主類是涉及面較廣的綜合性類目，用數字標記。每一主類按主題細分為若干次類，其類號由數字、小數點或字母所組成，次類之階層結構主要是透過一個或多個實心的圓點縮排來決定，圓點數目越多的次類階層越低。
- 主類號D01至D32為新式樣之分類，D99為新式樣雜類之分類。
- 植物專利的類號由PLT所代表，發明專利的主類編號從2到987，中間並不連續而設有空號，為往後增加新類目時之用。
- 次類的編排主要根據技術的複雜性，大多數的情形下較複雜的技術主題安排在分類表中較前面的位置，例如多步驟方法的分類位置會被安排在單一步驟方法分類位置的前面，而較為次要的技術主題則被排在分類表後面的位置。因此，對於一個同時可被兩個同階層次類所包括的技術主題，其分類號的選擇是採用較前面的次類。

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USPC

- 在賦予分類時，由於申請專利範圍代表的是一項新穎技術的揭露，因此針對每一項不同技術主題的申請專利範圍都會賦予一個分類，而這些分類稱為義務分類(Mandatory classification)。
- 在每一項申請專利範圍均賦予分類之後，其中的一個義務分類會被選作為原始分類(Original classification, 代號為OR)，是USPTO用來分配審查單位與進行再分類時的依據。
- 除了義務分類之外，若有新穎且可做為參考的技術主題時，專利文件上還會附上任意性的索引分類(Discretionary cross-reference patent classifications, 代號為XR)。
- 美國專利之國際專利分類號，係由USPTO分類人員先將申請案賦予USPC後，再由USPTO所發行的USPC-IPC對照表(US-to-IPC Concordance)進行對照後產生。
- USPC分類表每個月進行修訂，相當能跟上科技變化。大約每三個月會進行一次再分類(Reclassification)，所以在利用USPC進行檢索時比較不易發生因分類版本不同而有所遺漏的情形，而這部分資訊可由USPTO所發行的再分類通知報告(Reclassification alert report)獲取。

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引證先前技術

先前技術之美國專利

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2,214,022 11/1945 Burr.
3,187,844 4/1964 Shippey.
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4,027,885 6/1977 Koguz.
4,322,262 2/1981 Igarashi.
4,396,962 8/1981 Campos.
4,462,549 2/1984 Zebelman.

主審查官

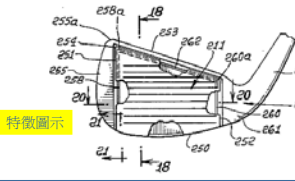
Primary Examiner—Vincent Millin
Assistant Examiner—Sebastiano Pastanini
Attorney, Agent, or Firm—William W. Hoeliger

專利代理人

ABSTRACT

[57]
A golf club head, comprising a main body portion formed by an investment casted first metallic material; a face plate formed of a second metallic material which is forged and is substantially softer than the first material, joining the periphery of the face plate to the main body portion to form a high strength, forged face plate for the golf club head; and the metallic materials for the face plate and main body portion being of substantially the same composition.

37 Claims, 6 Drawing Sheets



特徵圖示

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發明概述

SUMMARY OF THE INVENTION

The golf club head of the present invention provides an improvement over prior art heads in that it utilizes a face plate of forged metal. This end result is achieved without greatly increasing the cost or weight of the driving head by forming the main body of the head in an investment casting of a material such as stainless steel, beryllium copper, titanium, or aluminum, and then attaching a face plate of forged metal selected from the class consisting of forged carbon steel, forged stainless steel, forged beryllium copper, and forged titanium, by suitable means such as welding.

It has been found that forged metal face plates have an inherently greater strength than cast metal face plates with a more uniform hardness over the hitting area of the plate. This is in view of the low porosity, high density and homogeneous grain structure of such a material which makes for a more solid plate. On the other hand, cast metal is desirable for the main body of the club head in view of its lighter weight, which tends to keep down the overall weight of the club head. It is therefore an object of the invention to provide a golf club head having a face plate of a forged metal

專利名稱

1
GOLF CLUB HEAD AND METHOD OF FORMING SAME

BACKGROUND OF THE INVENTION

This application is a continuation-in-part of Ser. No. 36,348, filed Dec. 13, 1991 now U.S. Pat. No. 5,043,663, which is a continuation-in-part of application Ser. No. 549,973, filed Jul. 9, 1990 now U.S. Pat. No. 4,943,383, which is a continuation-in-part of application Ser. No. 492,973 filed Mar. 13, 1990, now U.S. Pat. No. 5,034,437, which is a continuation-in-part of Ser. No. 344,099, filed Aug. 13, 1988, now U.S. Pat. No. 4,811,411.

This invention relates to golf clubs and more particularly to an improved face plate construction for a golf club head.

It is therefore an object of the invention to provide a one-piece casting of durable materials, such as stainless steel, beryllium copper, aluminum, etc. A head of this type is described in U.S. Pat. No. 4,021,047 issued May 3, 1977, to R. J. Mader. The use of face plates made of a different material than that of the main body of the club head has been disclosed in the prior art in both iron and "wood"-type drivers, which are often made of cast metal. Such prior art club heads are described in U.S. Pat. No. 4,792,140 issued Dec. 20, 1984, to Yamaguchi et al.; U.S. Pat. No. 4,534,558 issued Aug. 13, 1985, to Yoneyama; U.S. Pat. No. 3,218,073 issued Nov. 16, 1965, to Burr; and British Patent No. 1,227,948 issued Apr. 15, 1971, to Haines et al. In the heads of all of these prior art patents, the face plate is of a plastic

It is another object to provide a face plate that provides a more uniform hardness over the hitting area of a golf club, to enhance control of ball striking; and it is an object to provide such a face plate that also consists of forged metal.

Additional objects include provision of a tapering forged metal part on an iron club head; a forged face plate that extends to the bottom level of the head and forms the lowermost front edge portion of the head to

發明背景
(相關專利家族資料)
(技術領域)
(先前技術)

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圖示說明

DRAWING DESCRIPTION
 FIG. 1 is a side elevational view of a first embodiment of the invention;
 FIG. 2 is a bottom plan view of the first embodiment;
 FIG. 3 is a top plan view illustrating the face plate employed in the first embodiment;
 FIG. 4 is a top plan view of the second embodiment;
 FIG. 5 is a side elevational view of a second embodiment of the invention;
 FIG. 6 is a bottom plan view of the second embodiment;
 FIG. 7 is a front perspective view of the second embodiment.

申請專利範圍

1. A claim:
 1. A golf club head, comprising:
 a) a main body portion formed by an investment casting of a first metallic material,
 b) a face plate formed of a second metallic material which is forged and is substantially softer than said first material,
 c) means including extending in a loop and welding joining the periphery of the face plate to said main body portion to form a high strength, forged face plate for said golf club head,
 d) the metallic materials for said face plate and main body portion being of substantially the same composition.
 2. The club head of claim 1 wherein said head has a top wall, a bottom wall, a toe and a heel, and wherein there is a minimum gap between the loop and said top wall.

最佳實施例詳細說明

DETAILED DESCRIPTION
 Referring to FIGS. 1-4, a first embodiment of the invention is illustrated. Face plate 11, which is fabricated from a metallic material, is mounted to a main body portion 12 of a metallic material. The face plate 11 is formed of a metallic material which is forged and is substantially softer than the main body portion 12. The face plate 11 is joined to the main body portion 12 by means including extending in a loop and welding joining the periphery of the face plate to said main body portion to form a high strength, forged face plate for said golf club head.

說明書中份量最多的部分

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可用之檢索欄位

Field Code	Field Name	Field Code	Field Name
PN	Patent Number	IN	Inventor Name
ISD	Issue Date	IC	Inventor City
TTL	Title	IS	Inventor State
ABST	Abstract	ICN	Inventor Country
ACLM	Claim(s)	LREP	Attorney or Agent
SPEC	Description Specification	AN	Assignee Name
CCL	Current US Classification	AC	Assignee City
ICL	International Classification	AS	Assignee State
APN	Application Serial Number	ACN	Assignee Country
APD	Application Date	EXP	Primary Examiner
PARN	Parent Case Information	EXA	Assistant Examiner
RLAP	Related US App. Data	REF	Referenced By
REIS	Reissue Data	FREF	Foreign References
PRIR	Foreign Priority	OREF	Other References
PCT	PCT Information	GOVT	Government Interest
APT	Application Type		

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USPC(美國專利分類號)

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Class Definition for Class 372 - COHERENT LIGHT GENERATORS
 ...for incoherent light emitting injection luminescent... SEMICONDUCTOR LASER A light emitting diode that uses stimulated...
<http://www.uspto.gov/ip/classification/uspc372/def372.htm> - 1844 - Aug 2, 2005

Class Definition for Class 257 - ACTIVE SOLID-STATE DEVICES (E.G., TRANSISTORS, SOLID-STATE DIODES)
 ...diode (e.g., light-emitting diode) (EPO): This...scope as ECLA classification H01L31/1482...same (e.g., light-emitting diode) (EPO): This...scope as ECLA classification H01L31/182...superluminescent diode (EPO): This...scope as ECLA classification H01L31/0077...other than light-emitting semiconductor...
<http://www.uspto.gov/ip/classification/uspc257/def257.htm> - 3,222,584 - Aug 2, 2005

Class Schedule for Class 257 ACTIVE SOLID-STATE DEVICES (E.G., TRANSISTORS, SOLID-STATE DIODES)
 ...being superluminescent diode (EPO) [List of Patents...component other than light-emitting semiconductor device...surface barrier (e.g., light-emitting diode) (EPO) [List of Patents...surface barrier (e.g., light-emitting diode) (EPO) [List of Patents...
<http://www.uspto.gov/ip/classification/uspc257/sch257.htm> - 2,042,364 - Aug 2, 2005

Class Definition for Class 362 - ILLUMINATION
 ...345, for a light emitting diode. [List of purposes of classification within this...scope as "light emit", "lamp", "light emitting diode (LED)]: This...original classification. (2) [List of purposes of classification within this...scope as "light emitting diode (LED)]: Foreign art collection...cathode and an anode. For 416 light emitting diode: Foreign art collection...
<http://www.uspto.gov/ip/classification/uspc362/def362.htm> - 1,474,284 - Aug 2, 2005

<http://www.uspto.gov/ip/classification/uspc362/def362.pdf> - 403,064 - Aug 2, 2005

Class Definition for Class 438 - SEMICONDUCTOR DEVICE MANUFACTURING; PROCESS
 ...incorporated Cathodoluminescent LED light emitting diode LED low-energy electron diffraction...materials. For 287 Multi-color light emitting diode (LED): Foreign art collection...cathode and an anode. For 416 light emitting diode: Foreign art collection...
<http://www.uspto.gov/ip/classification/uspc438/def438.htm> - 1,684,164 - Aug 2, 2005

<http://www.uspto.gov/ip/classification/uspc257.htm>

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Class 347 INCREMENTAL PRINTING OF SYMBOLIC INFORMATION

17 INK JET
 18 -- Combined
 19 -- Reproduction (e.g., facsimile, copier, etc.)
 20 -- With conveyed object
 21 -- Controller
 22 -- Of fluid (e.g., ink flow rate, viscosity, etc.)
 23 -- Fluid content (e.g., moisture or solvent content, ink refilling, liquid level)
 24 -- Of spacing between fluid ejector and receiving medium
 25 -- Of ejector
 26 -- Drive waveform
 27 -- Plural nozzles
 28 -- Array
 29 -- Full-line array
 30 -- Responsive to condition
 31 -- Creating plural tones
 32 -- Of medium
 33 -- Of temperature or pressure of device or component thereof
 34 -- With particular coding means
 35 -- Measuring and testing (e.g., diagnostics)
 36 -- Ejector mechanism (i.e., print head)
 37 -- With additional fluid
 38 -- With cleaning or protector
 39 -- Responsive to condition
 40 -- For color
 41 -- Gas
 42 -- Heat
 43 -- Vibration

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CLASS 347 INCREMENTAL PRINTING OF SYMBOLIC INFORMATION

See also for a general view of this file.

SECTION I - CLASS DEFINITION

This class provides for processes and apparatus for conveying information by selectively creating on a medium a visibly distinguishable symbol* or mark* composed of a plurality of portions*. The symbol* or mark* is created portion* by portion* as, for example, by proof or dot. The symbol* or mark* may be an alphanumeric character or an image.

SCOPE OF THIS CLASS (347)

- (1) Note. The symbol* or mark* is created portion* by portion*. A symbol* or mark* which is not created portion* by portion* is found elsewhere. For example, printing type, typewriters, stamps, and hand stamps create a whole mark* rather than a mark* portion* by portion*. (See References to Other Classes, below, for these latter classes).
- (2) Note. The symbol* or mark* which is created using a character supporting electrode stylus by which an electrostatic charge is deposited onto or discharged from a medium is, however, classified in this class (347).
- (3) Note. The symbol* or mark* conveys information. Information is the communication of knowledge or intelligence. For example, an alphanumeric character and an image are marks* which convey information. A code (e.g., a bar code) is a mark* which conveys information.
- (4) Note. A visibly distinguishable mark* is not portion* by portion* for a purpose other than conveying information is found elsewhere. For an example of a coating formed in this manner, see References to Other Classes below.
- (5) Note. Some portion* by portion* marks* in a specific situation are found elsewhere. For a portion* by portion* mark in the production of a printing plate see References to Other Classes, below.
- (6) Note. The marking* can be combined* for a special purpose. Special purpose devices are found elsewhere, e.g., facsimile devices, electrophotographic copiers, labellers, and recorders. (See References to Other Classes, below.)
- (7) Note. The marking* device is made up of several portion*s: a combined* portion, a controller portion, a head* portion, a marking* portion, a medium portion, and a housing portion. The combined* portion is the combination of a marking* device and an external means which functions as a special information marking* system. The controller portion contains the means to direct the operation of the marking* device or any of its component parts. The head* portion contains the means which provide the marking*. The marking* portion contains the specifics of the marking* (e.g., the fluid, the impact, the heat, the electricity, and the radiation). The medium portion contains the medium, its handling, and its processing. The housing portion* contains an outer enclosure for the marking* device.

SECTION II - LINES WITH OTHER CLASSES AND WITHIN THIS CLASS

This class (347) provides for "stand-alone" incremental printers such as ink jet, latex, thermal, dot-matrix, or electrostatic printers. These devices, for the most part, are now classified in Class 348, Recorders, and Class 450, Typewriting Machines.


Other types of informational marking* are found elsewhere. See References to Other Classes, below.



USPTO 資料庫

www.uspto.gov

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萬用字元

- ?
 - 1個字元, 不多也不少
 - 可以放字中, 也可以放字尾。
- \$
 - 0個字元, 或其他可能的變化
 - 只能放字尾, 不能放字中。
 - 字尾前至少要有4個字元
- 多個單字組成的片語用“片語”表示
- “ ” 內不能用萬用字元

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布林運算子
AND
OR
ANDNOT

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Data current through 07/12/2005

Query [Help]

Term 1: in Field 1: All Fields

AND

Term 2: in Field 2: All Fields

Select years [Help]

1976 to present [full-text]

Search 重設

可以設定檢索欄位

Patents from 1790 through 1975 are searchable only by Patent Number and Current US Classification!

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Enter the patent number(s) you're searching for in the box below.

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Examples:

Utility	:5,146,634
Design	:D339,456
Plant	:PP8,901
Reissue	:RE35,312
Def. Pub.	:T109,201
SIR	:H1,523

Search Reset

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Advanced Search

USPTO PATENT FULL-TEXT AND IMAGE DATABASE

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Data current through 07/12/2005

Query [Help]

Examples:
ttl(tennis and (racquet or racket))
isd 1 8 2002 and motorcycle
in newmar-julie

Select Years [Help]

1976 to present [full-text]

Search 重設

不能超過250個字元

可以選擇年份

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可用之檢索欄位

Field Code	Field Name	Field Code	Field Name
PN	Patent Number	IN	Inventor Name
ISD	Issue Date	IC	Inventor City
TTT	Title	IS	Inventor State
ABST	Abstract	ICN	Inventor Country
ACLM	Claim(s)	LREP	Attorney or Agent
SPEC	Description/Specification	AN	Assignee Name
CCL	Current US Classification	AC	Assignee City
ICL	International Classification	AS	Assignee State
APN	Application Serial Number	ACN	Assignee Country
APD	Application Date	EXP	Primary Examiner
PARN	Parent Case Information	EXA	Assistant Examiner
RLAP	Related US App. Data	REF	Referenced By
REIS	Reissue Data	FREF	Foreign References
PRIR	Foreign Priority	OREF	Other References
PCT	PCT Information	GOVT	Government Interest
APT	Application Type		

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This field contains the date the patent was officially issued by the US Patent and Trademark Office.

TIP: You can use one of three formats to search in any of the date fields:

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Year must be a four digit year (1996).

Example: Use 1-3-1996 or January-3-1996 to retrieve documents issued on January 3, 1996.

Month can be the number of the month, the full name of the month, or an abbreviation (i.e. 1, January or Jan).

Day must be a number between 1 and 31 or a 5.

Year must be a four digit year (1996).

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If you want to search for all documents with issue dates in January of 1995, it is simpler to use ISD 1/1/1995-1/31/1995, or both will return the same results.

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Golf Putter

專利檢索
案例

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Query [Help]

Term 1: Golf putter in Field 1: All Fields

AND

Term 2: in Field 2: All Fields

Select years [Help]

1996 to present (full-text)

USPTO PATENT FULL-TEXT AND IMAGE DATABASE

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Searching US Patent Collection...

Results of Search in US Patent Collection db for: "Golf putter": 1483 patents.

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Query [Help]

Term 1: Golf in Field 1: All Fields

AND

Term 2: putter in Field 2: All Fields

Select years [Help]

1996 to present (full-text)

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Searching US Patent Collection...

Results of Search in US Patent Collection db for: Golf AND putter: 3419 patents.

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Query [Help]

Term 1: Golf in Field 1: (Class)

AND

Term 2: putter in Field 2: (Class)

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1996 to present (full-text)

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Searching US Patent Collection...

Results of Search in US Patent Collection db for: ACLM/Golf AND ACLM/putter: 1652 patents.
Hits 1 through 50 out of 1652

Next 50 hits

Jump to

Refine Search: ACLM/Golf AND ACLM/putter

PAT. NO.	Title
1 7,118,488	Training putter with laser line projecting device
2 0529,560	Golf club head for a putter
3 7,115,041	Putter-type golf club head with an insert
4 0529,113	Golf putter head cover
5 0529,110	Golf putter head
6 0529,109	Golf putter head
7 0529,108	Portion of a golf club head for a putter

• 哪個才對?
- 1483?
- 3419?
- 1652?

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Hits 1 through 50 out of 1652

Next 50 hits

Jump to

Refine Search: ACLM/Golf AND ACLM/putter

4 results for putter site: http://www.uspto.gov/ip/classification/ (Details)

Web results by MSN Search

Class Schedule for Class 473 GAMES USING TANGIBLE PROJECTILE

2. Practice device or device to aid in aiming cue or cue ball during shots (e.g., to ... Player faces target (e.g., croquet style putter, etc.) ...

Class Schedule for Class D21 GAMES, TOYS, AND SPORTS GOODS

Putter ... This file produced by USPTO - SISA, Office of Patent Automation - Reference Tools Project

Class Definition for Class 473 - GAMES USING TANGIBLE PROJECTILE

SECTION 1 - CLASS DEFINITION: This class includes: Apparatus or means relating to the type of amusement, recreational, or play activities commonly known as games or sports (i) in which one or more ...

Class Definition for Class D21 - GAMES, TOYS, AND SPORTS EQUIPMENT

SECTION 1 - CLASS DEFINITION: This class provides for design patents claiming ornamental designs for: 1. Game or gambling article. 2. Toy. 3. Exercise equipment

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Query [Help]

Term 1: Golf in Field 1: (Class)

AND

Term 2: putter in Field 2: (Class)

Select years [Help]

1996 to present (full-text)

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Searching US Patent Collection...

Results of Search in US Patent Collection db for: CCL/473/293: 52 patents.
Hits 1 through 50 out of 52

287	Club set
288	Interchangeable handle, striking face, or shaft
289	Particular conical shaft General characteristic
290	Particular conical head characteristic
291	Shaft distributions
292	Head, shaft, and handle having particular combined use of gravity
293	Player faces target (e.g., croquet style putter, etc.)
294	Hands spaced apart on handle
296	Rotatable handle
296	Longitudinally adjustable handle or shaft
297	Particularly weighted handle
298	Grip or handle having particular nonwinding attachment to shaft (e.g., quick detachable, etc.)
299	Detachable

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USPTO PATENT FULL-TEXT AND IMAGE DATABASE

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Data current through October 10, 2006.

Query [Help]

Term 1: Golf in Field 1: (Class)

AND

Term 2: putter in Field 2: (Class)

Select years [Help]

1996 to present (full-text)

USPTO PATENT FULL-TEXT AND IMAGE DATABASE

Home Quick Advanced Pat Num Help



Next List Bottom View Cart

Searching US Patent Collection...

Results of Search in US Patent Collection db for: CCL/473/313: 271 patents.
Hits 1 through 50 out of 271

300	Grip
301	Spiral winding
302	Having recess or projection
303	Having longitudinal recess or projection
304	One piece head and shaft
305	Head and shaft connection
306	Threaded shaft
307	Detachable and reattachable
308	Sleeve or winding engaged over outside of joint, head, and shaft
309	Joint formed with sleeve engaging shaft and head
310	Resilient sleeve engaging head and outer shaft wall
311	Shaft contact sole
312	Having cone (e.g., weight, etc.) positioned in head engaging shaft end
313	Putter
314	Particular relationship between shaft longitudinal axis and head orientation
315	Noncircular shaft end wall engages head

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324	Head
325	Plural striking faces
326	Liquid interior
327	Reduced air resistance
328	Reduced ground resistance
329	Striking face surface deforms upon impact (e.g., resilient, etc.)
330	Curved, grooved, or roughened striking face
331	Plural grooves
332	Vibratory wave (e.g., shock wave, etc.) modifying frame
333	With element displaceable with respect to another head element during swing
334	Selectively adjustable weighting element
335	Subsided in head
336	Elongated horizontal bore
337	Perpendicular to propulsive striking face
338	In vertical bore access by sole
339	In vertical bore access through sole
340	Putter
341	Top and heel weighting
342	Striking face insert

Searching US Patent Collection...

Results of Search in US Patent Collection db for: CCL/473/340: 417 patents.
Hits 1 through 50 out of 417

Searching US Patent Collection...

Results of Search in US Patent Collection db for: CCL/473/341: 194 patents.
Hits 1 through 50 out of 194

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736	Simulator
737	Putter
738	Including mirror, prism, or level member
739	Opposed striking surfaces (e.g., "mallet" type)
740	Fraced head
741	Offset or dual head
742	Head centered on striking surface
743	Including alignment aid
744	Distinct V-groove or notch
745	Plural
746	Distended type
747	Arrow, line, or dot
748	Arrow

Searching US Patent Collection...

Results of Search in US Patent Collection db for: CCL/D21/736: 239 patents.
Hits 1 through 50 out of 239

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檢索結果

- Utility patents

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Results of Search in US Patent Collection db for: ((CCL/473/340 OR CCL/473/341) OR CCL/473/313): 678 patents.
Hits 1 through 50 out of 678
- Design Patents

Searching US Patent Collection...

Results of Search in US Patent Collection db for: (((((((CCL/D21/736 OR CCL/D21/737) OR CCL/D21/738) OR CCL/D21/739) OR CCL/D21/740) OR CCL/D21/741) OR CCL/D21/742) OR CCL/D21/743) OR CCL/D21/744) OR CCL/D21/745) OR CCL/D21/746): 1201 patents.
Hits 1 through 50 out of 1201

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動力釘槍



檢索案例

圖片來源：亞捷斯國際有限公司

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專利檢索

- 資料庫：USPTO



1735 pat. 釘槍 ICL/B25C\$ (釘槍/螺絲釘槍)

↓

319 pat. 動力釘槍

ICL(B25C\$) AND TTL(POWERS\$) OR ABST(POWERS\$) OR ACLM(POWERS\$)

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國際專利分類號 B25C	IPC 內容描述
B25C	手持釘槍或釘形工具；手動輕便式釘形釘工具（用於製鞋者見 A43D）
B25C001.00	手持釘釘工具（鑄本身見B25D；與執行操作無特殊關聯的輕便機械工具之零件或部件，例如機殼、機體見B25F5.00；釘釘機見B27F7.02）；所用的供釘裝置〔4〕
B25C003.00	夾持及引導及釘子之輕便設備；釘子分配器
B25C005.00	手動輕便釘形釘工具；手持機械釘形釘工具（外科手術用U形釘釘工具見A61B17.068 + 17.115；與執行操作無特殊關聯的輕便機械工具之零件或部件，如機殼、機體見B25F5.00；釘形釘機見B37F1.17）；所用的形釘進料裝置（外科手術用U形釘見A61B17.064；U形釘見F16B15.00）〔3,4,5〕
B25C007.00	釘釘或釘形釘工具之附件，例如夾座（用於由炸雷包操作之工具附件見1.18）
B25C009.00	釘形衝頭
B25C011.00	釘子、螺釘、或U形釘釘器（裝在錘子上者見B25D1.00）
B25C013.00	釘子殘留工具
國際 IPC	IPC 內容描述
B25D	其他類不包括的用於鑄造、連接、拆卸、或夾持的工具或台式設備
B25D	衝擊工具（非通用衝擊機見B21；一般手持鑽孔機見B23B45.00；用於木料者見B23C06；用於採礦或採石者見B23D21B〔2〕）

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Query [Help]
((ICL/B25C\$ AND ISD/19760101->20031201)

Examples:
tfl/(tennis and (racquet or racket))
isd/1/8/2002 and motorcycle
in/newmar-julie

Select Years [Help]
1976 to present (full-text)

Search 重試

Results of Search in US Patent Collection db for:
((ICL/B25C\$ AND ISD/19760101->20031201): 1735 patents.
Hits 1 through 50 out of 1735

Next 50 Hits

Jump To

Patent Search: ((ICL/B25C\$ AND ISD/19760101->20031201)

PAT. NO. Title

1	6,651,863	Cap assembly for covering an air release opening in a housing of a nail driving gun
2	6,651,862	Trim-type fastener driving tool

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Results of Search in 1976 to present db for:
(((ICL/B25C\$ AND ISD/19760101->20031201) AND ((TTL/power\$ OR ABST/power\$ OR ACLM/power\$))): 319 patents.
Hits 1 through 50 out of 319

Next 50 Hits

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Patent Search: ((ICL/B25C\$ AND ISD/19760101->20031201) AND ((TTL/power\$ OR ABST/power\$ OR ACLM/power\$))

Query [Help]
((ICL/B25C\$ AND ISD/19760101->20031201) AND ((TTL/power\$ OR ABST/power\$ OR ACLM/power\$))

Select Years [Help]
1976 to present (full-text)

Search 重試

Patent Search: ((ICL/B25C\$ AND ISD/19760101->20031201) AND ((TTL/power\$ OR ABST/power\$ OR ACLM/power\$))

PAT. NO. Title

1	6,651,862	Trim-type fastener driving tool
2	6,641,019	Fastener driving tool with multi-size fastener magazine
3	6,634,623	Binding member removing apparatus, automatic document feeder, sheet processing apparatus, and image forming apparatus
4	6,619,427	Combustion powered tool suspension for iron core fan motor
5	6,607,111	Physiwell operated tool
6	6,604,666	Portable electrical motor driven nail gun
7	6,598,556	Portable hydraulic powered stake puller
8	6,598,774	Hammer head assembly for power hammer
9	6,581,815	Nailing depth adjusting and positioning device for a power nailer

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Really only 319 ?

跟電力有關的

Results of Search in US Patent Collection db for:
(((ICL/B25C\$ AND ISD/19760101->20031201) AND ((TTL/electr\$ OR ABST/electr\$ OR ACLM/electr\$))): 174 patents.
Hits 1 through 50 out of 174

跟氣動有關的

Results of Search in US Patent Collection db for:
(((ICL/B25C\$ AND ISD/19760101->20031201) AND ((TTL/pneumatic\$ OR ABST/pneumatic\$ OR ACLM/pneumatic\$))): 221 patents.
Hits 1 through 50 out of 221

跟燃燒驅動有關的

Results of Search in US Patent Collection db for:
(((ICL/B25C\$ AND ISD/19760101->20031201) AND ((TTL/combust\$ OR ABST/combust\$ OR ACLM/combust\$))): 158 patents.
Hits 1 through 50 out of 158

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Really only 319 ?

動力工具跟電力有關的

Results of Search in US Patent Collection db for:
(((ICL/B25C\$ AND ISD/19760101->20031201) AND ((TTL/electr\$ OR ABST/electr\$ OR ACLM/electr\$) AND ACLM/power\$)): 25 patents.
Hits 1 through 50 out of 25

動力工具跟氣動有關的

Results of Search in US Patent Collection db for:
(((ICL/B25C\$ AND ISD/19760101->20031201) AND ((TTL/power\$ OR ABST/power\$ OR ACLM/power\$) AND ((TTL/pneumatic\$ OR ABST/pneumatic\$ OR ACLM/pneumatic\$))): 38 patents.
Hits 1 through 38 out of 38

動力工具跟燃燒驅動有關的

Results of Search in US Patent Collection db for:
(((ICL/B25C\$ AND ISD/19760101->20031201) AND ((TTL/power\$ OR ABST/power\$ OR ACLM/power\$) AND ((TTL/combust\$ OR ABST/combust\$ OR ACLM/combust\$))): 89 patents.
Hits 1 through 50 out of 89

Patent search is really an art!

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SMAF

Synthetic music Mobile Application Format

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SMAF

- Synthetic music Mobile Application Format
- Yamaha開發出來的多媒體資料形式。
- SMAF的規格, 被定義為在hand-held portable devices上能夠播放多媒體檔案形式。
- SMAF檔案, 與同類的SMF(標準MIDI檔案)相比, 具有檔案尺寸小、表現力強的優點。
- 現在, SMAF主要被用於手機鈴聲的製作上; 在製作手機終端器上用的多媒體曲目時, SMAF亦提供了一個性能強而可行的空間。

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檢索策略(1)

專利檢索(2)

專利檢索(3)

專利檢索的重要性

有了好的檢索
專利地圖就輕鬆簡單多了

專利檢索的時機-1

- 擬訂研發計劃
 - 避免對同一技術重複研究，並瞭解潛在競爭對手，在研擬計畫之初宜進行前案檢索。
- 提出專利申請
 - 為符合專利審查要件之新穎性與進步性，釐清專利特徵，以提高獲准率，專利申請前必須進行前案檢索。
- 提出學發
 - 若認為他人之專利，有不應准予專利之情形時，可進行前案檢索以尋找有利之學發證據。
 - 申請日/優先權日前已公開之專利資料為佳。
 - 絕對新穎性原則，各國專利資料均可。
 - 平時對競爭對手之專利監控
 - 侵權訴訟時之防禦
 - (專利法第90條)關於發明專利權之民事訴訟，在申請案、學發案、撤銷案確定前，得停止審判。



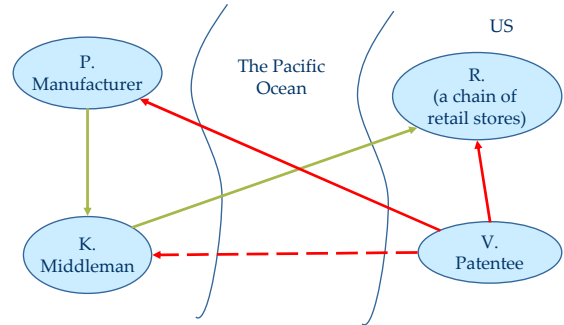
專利檢索的時機-2

- 專利侵害鑑定
 - 先前技術阻卻
- 接獲訂單、製造產品
 - 避免接獲之產品訂單為專利侵權物品，接獲訂單後、製造產品前宜進行前案檢索。
- 銷售產品
 - 避免銷售之產品訂單為專利侵權物品，產品上架銷售前宜進行前案檢索。
- 輸出/進口產品
 - 專利權採屬地主義，為避免貨物之輸出不慎侵害他人權利，宜對出口地區進行前案檢索
 - 商品進口前宜進行本地之前案檢索。
- 洽談技術引進與合作
 - 可經由專利資料找出具有技術優勢的廠家與關鍵發明人，參酌合作條件，以選定適當之合作對象。

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Real Case(2008)



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管理圖分析

專利分析是一種選擇，
不是一種規則。

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管理圖分析

- 專利趨勢分析
- 國家別分析
- 專利權人(公司)分析
- 發明人分析
- IPC分析
- UPC分析
- 分析前之要務
 - 國家代碼確認
 - Country code vs State code
 - 國家代碼編修
 - 專利權人名稱檢查
 - 專利權人名稱編修
 - 專利權人名稱合併
 - 發明人合併
- Google是好工具

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國家代碼確認

US State(美國州)	美國州代碼/國碼代碼	國碼
ALABAMA	AL	阿爾巴尼亞
ARKANSAS	AR	阿根廷
ARIZONA	AZ	阿塞拜疆
CALIFORNIA	CA	加拿大
COLORADO	CO	哥倫比亞
CANAL ZONE	CZ	捷克
DELAWARE	DE	德國
GEORGIA	GA	加蓬
IDAHO	ID	印尼
ILLINOIS	IL	以色列
INDIANA	IN	印度
KENTUCKY	KY	開曼群島
LOUISIANA	LA	老沃

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國家代碼確認

US State(美國州)	美國州代碼/國碼代碼	國碼
MASSACHUSETTS	MA	摩洛哥
MARYLAND	MD	馬拉加西
MINNESOTA	MN	蒙古
MISSOURI	MO	澳門
MISSISSIPPI	MS	蒙特塞拉特克島
MONTANA	MT	馬爾他
NEBRASKA	NE (NB)	尼日
NORTH CAROLINA	NC	新赫多尼西亞島
PENNSYLVANIA	PA	巴拿馬
PUERTO RICO	PR	波多黎各
SOUTH CAROLINA	SC	塞舌爾
SOUTH DAKOTA	SD	蘇丹
TENNESSEE	TN	突尼西亞
VIRGINIA	VA	梵諦岡
VIRGIN ISLANDS	VI	維京群島

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(1 of 1)

United States Patent 5,860,580
Velaz, et al. January 19, 1999

Piston retention device for combustion-powered tools

Abstract

An improved combustion powered tool for driving fasteners into a workpiece includes a main housing enclosing a cylinder body and an adjacent combustion chamber. The tool includes a workpiece-actuating reciprocating member attached to the housing at the end opposite the combustion chamber and holds fasteners to be driven into the workpiece. A reciprocally disposed piston is mounted within the cylinder body, and is attached to an elongate driver blade, the driver blade being used to impact the fasteners and drive them into the workpiece. At the upper end of the cylinder body is disposed a compressible piston retaining device. The retaining device is of sufficient strength to accommodate the weight of the piston and to retard the upward velocity of a retaining piston, but is overcome when the tool is fired.

Inventors: Yulene George McMount-Burgess, II, Dewey George G (Palatine, IL)

Assignee: Illinois Tool Works Inc., (Glenview, IL)

Appl. No.: 08/842,058

Filed: May 3, 1996

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專利趨勢分析

- 據以了解整個產業技術領域專利產出數量之發展趨勢。
- 歷年專利數量比較圖
 - 歷年公告專利數量比較圖：瞭解專利技術之發展成果
 - 歷年申請專利數量比較圖：瞭解專利技術的萌芽時間
- 專利趨勢預測
- 專利權人趨勢預測
- 技術生命週期圖：二維分佈圖，目的係了解相關技術變化過程
 - 技術生命週期圖(以專利權人數分析)：縱軸係專利數量，橫軸係專利權人數，將每年份之專利數量與專利權人數分佈於圖上對應位置，再以平滑曲線連結得之。
 - 技術生命週期圖(以發明人數分析)：縱軸係專利數量，橫軸係發明人數，將每年份之專利數量與發明人數分佈於圖上對應位置，再以平滑曲線連結得之。

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歷年專利件數

年份	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
公告日	7	7	14	3	10	6	9	10	12	14	6	13	13		
申請日	4	4	11	11	11	8	12	10	7	12	7	10	14	7	13

年份	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
公告日	13	10	14	8	12	12	9	12	11	9	19	22	17	11	15
申請日	13	11	8	12	11	10	16	10	17	13	25	15	10	6	

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歷年專利權人數

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技術生命週期

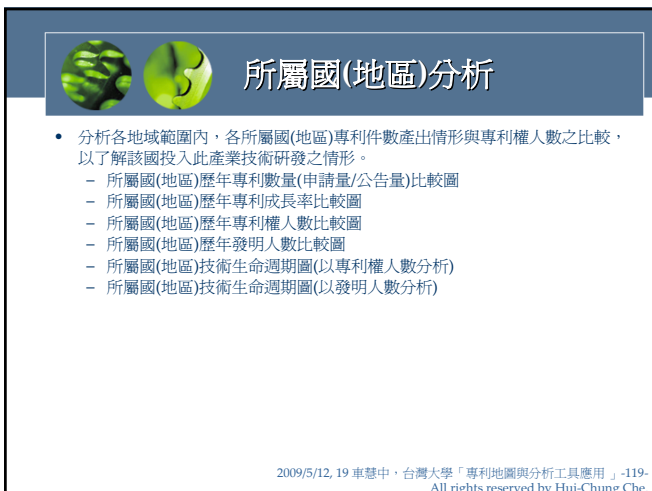
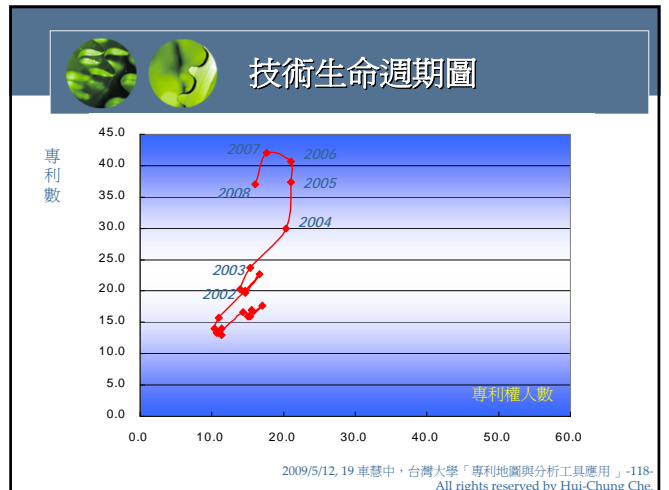
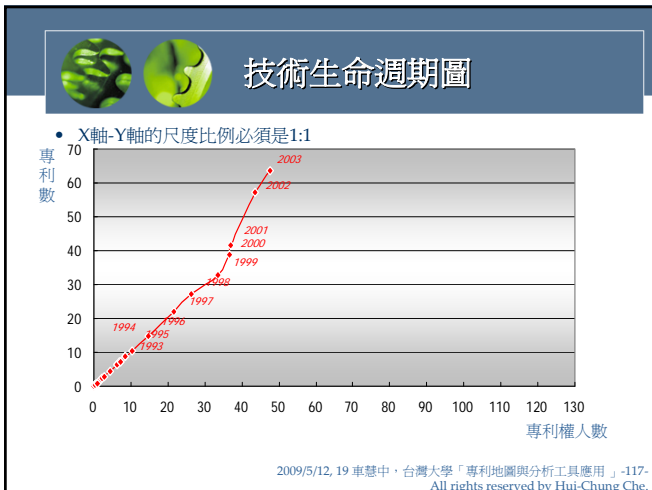
- 第一階段：技術萌芽階段
 - 廠商的投入意願低，專利的申請件數與專利權人數均較少，專利共有或委託研究的狀況較多。
- 第二階段：技術成長期
 - 技術有突破或廠商對於市場價值有了認知，競相投入發展，專利的申請量與申請人數會大幅上升。
- 第三階段：技術成熟期
 - 少數廠商大肆擴張專利申請，構築專利圍牆，以嚇阻其他廠商進入，專利申請量激增，但申請人數成長減緩。
- 第四階段：技術瓶頸期
 - 廠商投資於研發與專利申請的資源不再擴張

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技術生命週期

- 資料零散波折，不易形成曲線

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各國專利能量

所屬國(地區)代碼	專利所屬國(地區)	專利件數	專利權人數
US	美國	222	127
TW	台灣	31	18
JP	日本	13	10
LI	列支敦斯登	12	1
DE	德國	11	10
FR	法國	10	8
AU	澳洲	5	5
GB2	英格蘭	3	4
IT	義大利	3	1
SE	瑞典	3	3
CA	加拿大	2	2
GB	英國	2	1
GB7	威爾斯	1	1
總結		318	191

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台灣專利權人

公司
Basso Industry (鑽全實業)
Besco Pneumatic Corp. (偉全企業)
De Poan Pneumatic Corp. (力肯)
Hsin-Ho Mfg. Co. Ltd. (興和實業)
Mewco Pneumatic Corp.
Nailermate Enterprise Corporation (金鉅準實業)
Regitar Power Tools Co., Ltd. (瑞吉達電動工具)

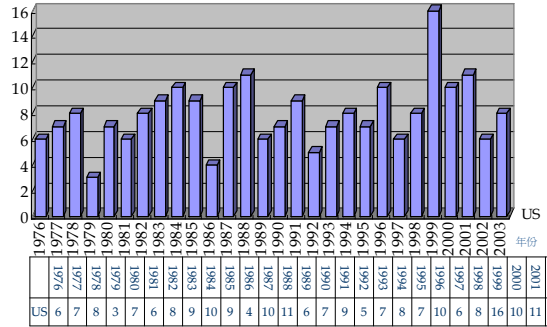
個人
Chen, Tung-Hsien
Chen, Bruce
Chen, Wilson
Hou, Chang Feng-Mei
Huang, Kuang-Wu
Lai, Wen-Tan
Liao, Walter
Lin, Chung-Cheng
Lin, Liang-Peng
Lin, Long-Chung
Wang-Kuan Lin

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所屬國(地區)歷年專利分析

專利件數 美國 (以公告日分析)

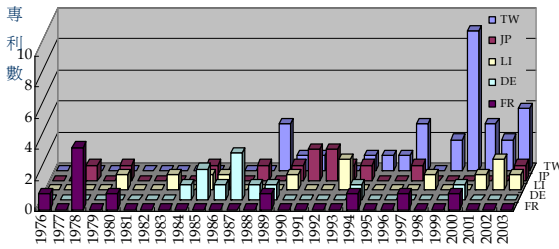


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所屬國(地區)歷年專利分析

(以公告日分析)



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競爭公司(專利權人)分析

- 競爭公司歷年專利數量比較圖
- 競爭公司歷年專利成長率比較圖
- 競爭公司發明人數比較圖
- 競爭公司相互引證分析：用以瞭解各公司專利技術之從屬關連性，包括有
 - 競爭公司自我引證專利數量排名表
 - 競爭公司被引證專利數量排名表
 - 競爭公司相互引證專利數量矩陣表
- 競爭公司相對研發能力比較

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競爭公司研發能力數據

公司名稱	專利數	活動年期	發明人數	平均專利年齡	佔有率
Illinois Tool Works	36	12	44	9	11.3%
Hilti Aktiengesellschaft	13	11	21	14	4.1%
Senco Products, Inc.	11	7	14	14	3.5%
Basso Industry	11	4	10	4	3.5%
Worktools, Inc.	9	7	3	9	2.8%
Stanley-Bostitch, Inc.	7	5	13	12	2.2%
Hitachi Koki	7	7	17	17	2.2%
Duo-Fast Corporation	7	6	8	22	2.2%
Applied Tool Development Corp.	7	4	6	5	2.2%
Swingline Inc.	6	5	10	21	1.9%
Societe De Prospection Et D. Inventions Techniques	6	6	7	16	1.9%
Olin Corporation	6	4	7	23	1.9%
United States Surgical Corporation	5	5	5	27	1.6%
Arrow Fastener	5	5	1	14	1.6%

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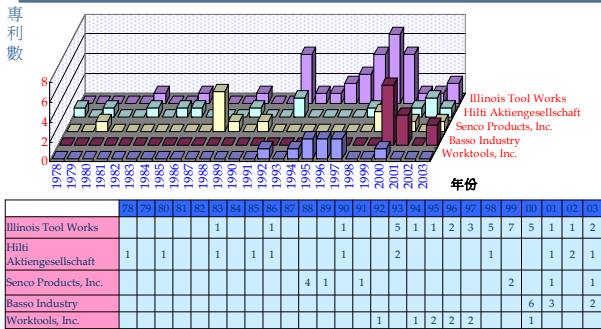
專利權人引證數比較

公司名稱	被引證總數	自我引證數	被他人引證數	專利數	發明人數
Illinois Tool Works	154	52	102	36	44
Signode Corporation	86	0	86	4	4
Senco Products, Inc.	49	0	49	11	14
Hitachi Koki	47	5	42	7	17
Hilti Aktiengesellschaft	39	4	35	13	21
Smith, James E.	19	0	19	2	2
Olin Corporation	15	1	14	6	7
United States Surgical Corp.	13	3	10	5	5
Duo-Fast Corporation	13	0	13	7	8
Swingline Inc.	11	2	9	6	10
Stanley-Bostitch, Inc.	10	4	6	7	13
Parker Manufacturing	9	0	9	3	2
Societe De Prospection	8	0	8	7	7
Monacelli, Umberto	6	1	5	3	1
Basso Industry	6	3	3	11	10
Arrow Fastener	6	0	6	5	1
Applied Tool	6	1	5	7	6

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競爭公司歷年專利數比較



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發明人分析

- 列出各專利發明人所屬國(地區)、所屬公司及專利產出件數, 以了解此產業技術領域專業人員之分佈情形。
 - 發明人所屬國(地區)分析
 - 發明人所屬公司分析
 - 重要發明人歷年活動圖

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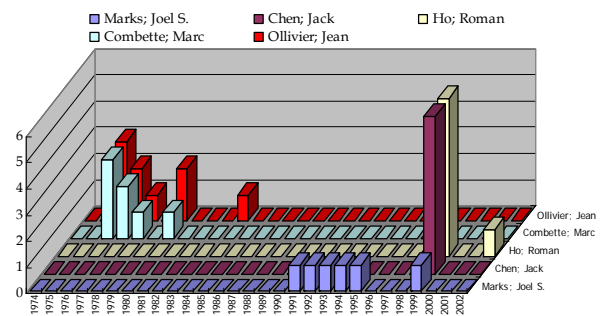
發明人分析(前12名)

發明人	所屬公司	專利數
Ollivier, Jean	Combette, Marc · Illinois Tool Works · Olin Corporation · Ollivier, Jean · Societe De Prospection Et D_Inventions Techniques	9
Combette, Marc	Combette, Marc · Olin Corporation · Ollivier, Jean · Societe De Prospection Et D_Inventions Techniques	7
Ho, Roman	Basso Industry	7
Chen, Jack	Basso Industry	6
Marks, Joel S.	Worktools, Inc.	6
Wingert, Rudolf	Arrow Fastener	5
Wagdy, Mohamed K.	Illinois Tool Works · Signode Corporation	5
Van Erden, Donald L.	Illinois Tool Works	5
Shkolnikov, Yury	Illinois Tool Works	5
Robinson, James W	Illinois Tool Works	5
Kwok, Kui-Chiu	Illinois Tool Works	5
Deieso, Tony	Illinois Tool Works	5

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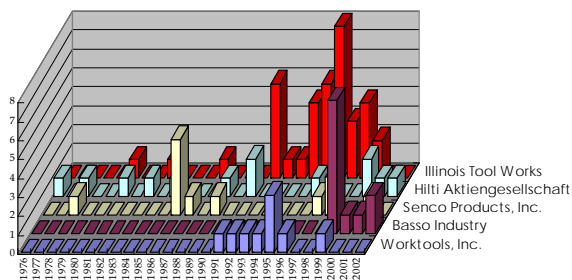
發明人歷年專利活動



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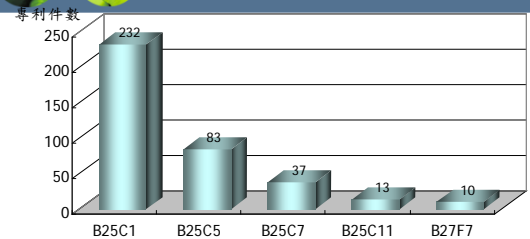
競爭公司歷年專利活動



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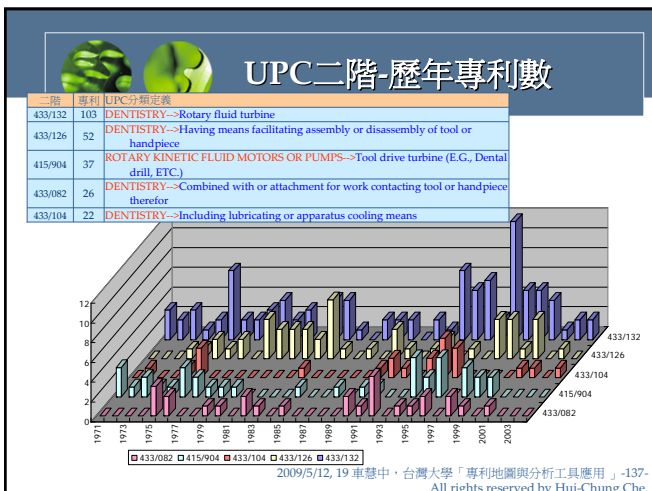
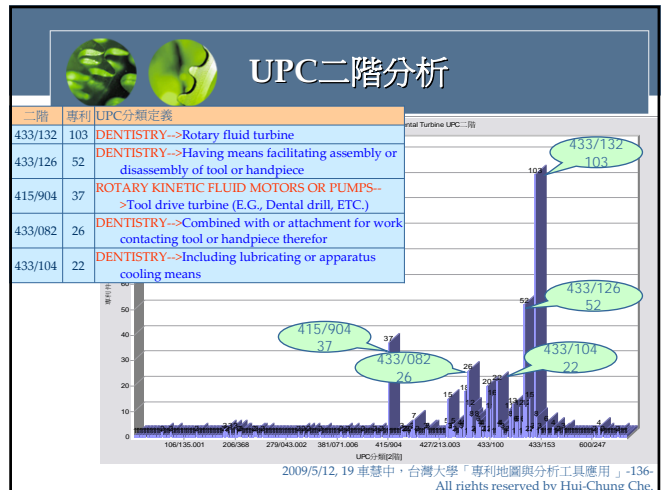
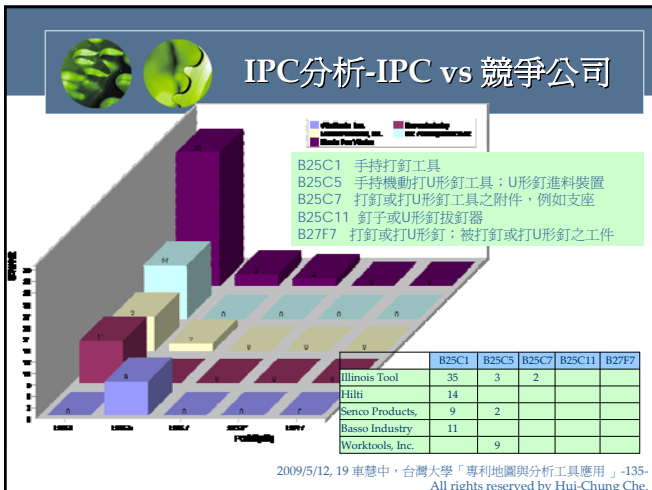
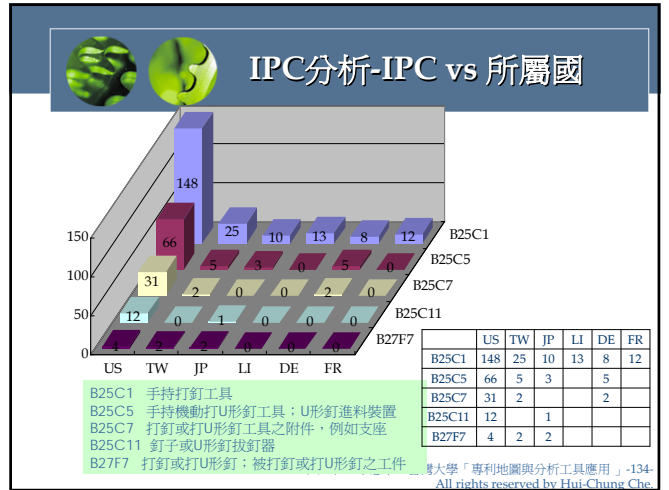
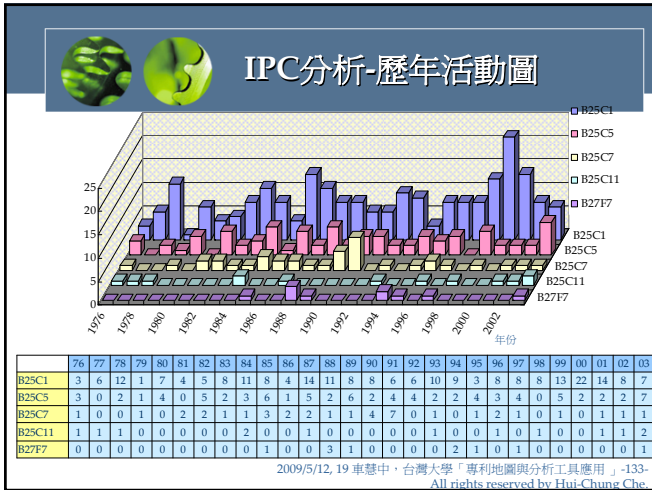


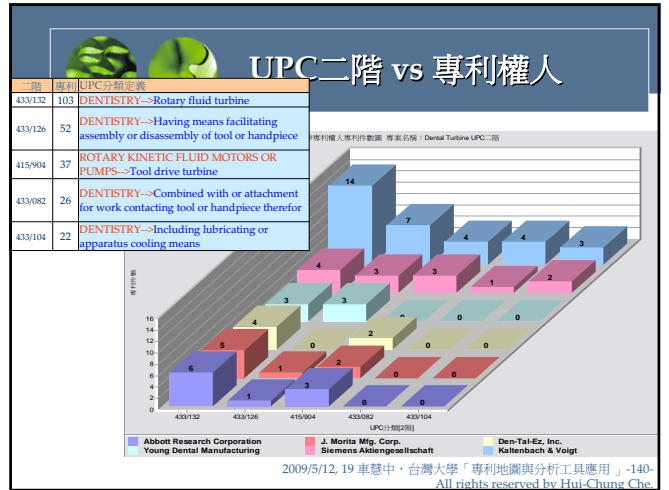
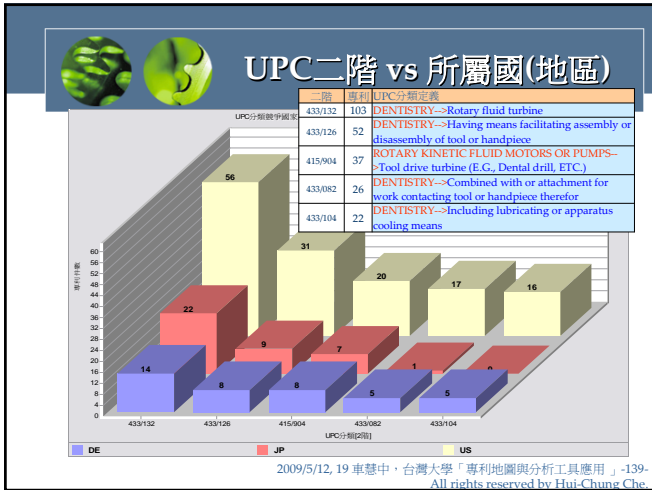
IPC分析-專利分類鳥瞰



- B25C1 手持打釘工具
- B25C5 手動輕便打U形釘工具; 手持機動打U形釘工具; U形釘進料裝置
- B25C7 打釘或打U形釘工具之附件, 例如支座
- B25C11 釘子或U形釘拔釘器
- B27F7 打釘或打U形釘; 被打釘或打U形釘之工件

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- 1. Forward Citation
 - 被引證數分析(尋找影響力高之專利)
 - 2. Citation Tree
 - 引證族譜圖(技術發展主流脈絡)
 - 3. Backward Citation
 - 引證前案數分析(尋找專利性強創新度高的專利)
 - 4. 公司交叉引證分析
- 2009/5/12, 19 車慧中, 台灣大學「專利地圖與分析工具應用」-142-
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US00539392A
United States Patent [19] Patent Number: **5,393,932**
Young et al. [45] Date of Patent: **Feb. 28, 1995**

[54] **WIRE CONNECTOR**

[75] Inventors: John S. Young, Leander; Robert B. Ericson; Gary S. Nistwig, both of Austin, all of Tex.

[73] Assignee: Minnesota Mining and Manufacturing Company, St. Paul, Minn.

[21] Appl. No.: 145,372

[22] Filed: Oct. 29, 1993

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 17,852, Apr. 30, 1991, which is a continuation-in-part of Ser. No. 835,803, Feb. 14, 1992, abandoned.

[51] Int. Cl. HO1R 4/02; HO1R 4/02

[52] U.S. Cl. 174/94 R; 29/869; 174/DIG. 8; 228/56.3

[58] Field of Search: 174/94 R, 84 C, DIG. 8; 228/56.3, 56.5, 224, 265, 29/869, 871, 873

[56] References Cited

U.S. PATENT DOCUMENTS

Re. 33,991 5/1991 Feeny et al. 156/85
3,143,595 8/1964 Martin 174/84 C
3,289,914 11/1966 Fuller et al. 174/84 R
3,330,442 6/1967 Fattor 278/56.3
3,396,460 6/1968 Wetmore 174/84 R
3,525,799 8/1970 Ellis 228/56.3
4,084,876 4/1978 Dwyer

FOREIGN PATENT DOCUMENTS

1149125 4/1969 United Kingdom
1246543 9/1971 United Kingdom
2005022 11/1979 United Kingdom
WO81/09068 11/1988 WIPO
WO90/16092 12/1990 WIPO

Primary Examiner—Morris H. Nimmo
Attorney, Agent, or Firm—Gary L. Griswold; Walter N. King; John C. Barnes

ABSTRACT

A wire connector having a conductive barrel with a solder disc disposed in the barrel with wire retaining means to hold the wires in place during heating and melting of the solder disc to form a permanent connection. A shirkable sleeve, provided with means of sealing, formed around the barrel and extending beyond the

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Application Number	Filing Date	Patent Number	Issue Date
17852	Apr., 1993		
835903	Feb., 1992		

Current U.S. Class: 174/84R; 174/DIG.8; 228/56.3; 29/869

Current International Class: HO1Q 1/24 (20060101); HO1R 4/70 (20060101); HO1R 4/72 (20060101); HO1R 4/48 (20060101); HO1R 004/02 (I); HO1R 043/02 (I)

Field of Search: 174/84R, 84C, DIG. 8; 228/56.3, 56.5, 224, 265, 29/869, 871, 873

References Cited [Referenced By]

U.S. Patent Documents

Patent Number	Issue Date	Inventor
2633291	May 1991	Feeny et al.
3143595	August 1964	Martin
3289914	November 1966	Fuller et al.
3326442	June 1967	Fattor
3394460	August 1968	Wetmore
3525799	August 1970	Ellis
4084876	April 1978	Dinger
4199211	April 1980	Kidder
4300284	November 1981	Reeder
4304959	December 1981	Vidakovits et al.
4384404	May 1983	Watine
4505421	March 1985	Gen et al.
4929724	June 1986	Koblitz

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USPTO PATENT FULL-TEXT AND IMAGE DATABASE

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Searching US Patent Collection...

Results of Search in US Patent Collection db for:
REF/5393932: 19 patents.
Hits 1 through 19 out of 19

Jump To:

Refine Search: ref:5393932

PAT. NO.	Title
1 7,448,922	Wire connector with easy entry and manufacturing method thereof
2 7,427,219	Terminal connector with easy entry and manufacturing method thereof
3 7,344,478	Connector and method for manufacturing and connecting wire
4 7,344,061	Multi-functional solder and articles made therewith, such as microelectronic components
5 7,341,232	Methods and apparatus for suspending fixtures

Forward Citation Count

No. 1 Forward Citation Count in all ITRI's patents. Mostly cited by Micron.

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USPTO PATENT FULL-TEXT AND IMAGE DATABASE

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Searching US Patent Collection...

Results of Search in US Patent Collection db for:
REF/5266514: 151 patents.
Hits 1 through 50 out of 151

Next 50 Hits

Jump To:

Refine Search: ref:5266514

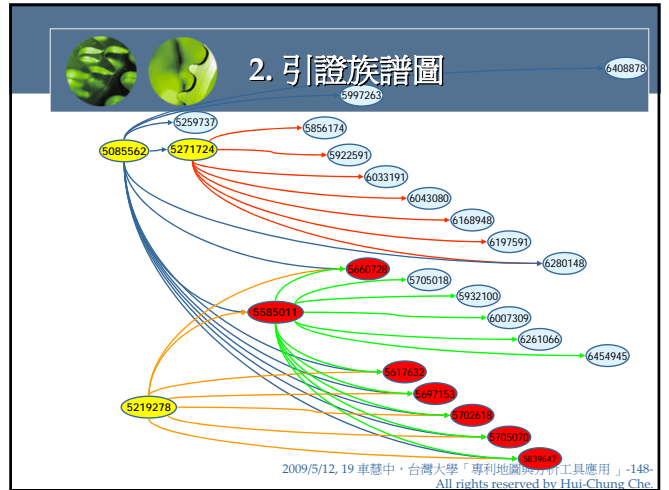
PAT. NO.	Title
1 7,410,668	Methods, systems, and apparatus for uniform chemical-vapor depositions
2 7,408,216	Device, system, and method for a trench capacitor having micro-roughened semiconductor surfaces
3 7,298,000	Conductive container structures having a dielectric cap
4 7,238,613	Diffusion-enhanced crystallization of amorphous materials to improve surface roughness
5 7,223,678	Circuit and method for a folded bit line memory cell with vertical transistor and trench capacitor

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Forward Citation Counts

專利號碼	引證總數	專利權人	自我引證	他人引證	參與公司
US5085562	12	Westonbridge International, Ltd.	2	10	5
US5271274	8	Westonbridge International, Ltd.	0	8	3
US5219278	7	Westonbridge International, Ltd.	0	7	1
US5585011	5(11)	Research International, Inc.	0	5	3
US6033191	2	Institut Fur Mikroelektronik Mainz GmbH, Germany	0	2	2
US5259737	2	Seiko Epson Corporation	0	2	2
US5460705	2	Lynntech	2	0	1
US5571410	2	Hewlett Packard	0	2	1
US5573651	2	The Dow Chemical Company	0	2	1
US5705018	1	Hartley, Frank T.	0	1	1
US5591139	1	The Regents of the University of California	0	1	1
US4596575	1	Omikron Scientific Ltd.	0	1	1
US5635039	1	Lynntech	1	0	1
US6130098	1	The Regents of the University of Michigan	0	1	1
US5800690	1	Caliper Technologies Corp.	1	0	1
US5839467	1	Research International, Inc.	0	1	1
US5856174	1	Affymetrix, Inc.	0	1	1
US5922591	1	Affymetrix, Inc.	0	1	1
US5932100	1	University of Washington	1	0	1
US6007309	1	Hartley, Frank T.	0	1	1
US6043080	1	Affymetrix, Inc.	0	1	1
US6048337	1	Principal AB	0	1	1
US5591344	1	Akxess Ltd	0	1	1

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US5085562

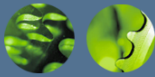
- Micropump having a constant output
- Westonbridge International Limited (Dublin, IE)

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US5219278

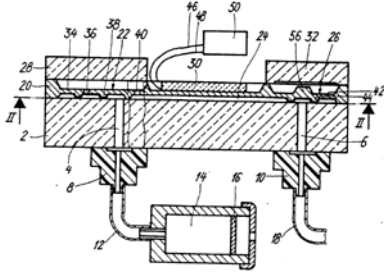
- Micropump with improved priming(10 Nov 1989)
- Westonbridge International Limited (Dublin, IE)

圖與分析工具應用」-150-
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US5271724

- Valve equipped with a position detector and a micropump incorporating said valve (31 AUG 1990)
 - Westonbridge International Limited (Dublin, IE)

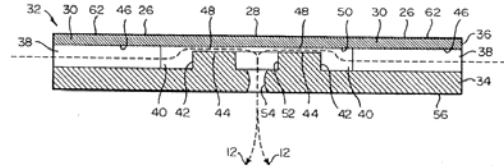


分析工具應用」-151-
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US5585011

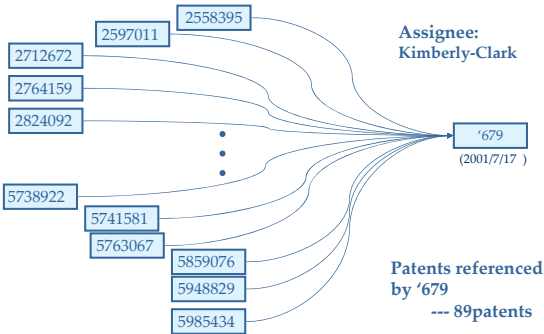
- Methods for manufacturing a filter
 - Research International, Inc. (Woodinville, WA)



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3. 引證前案數分析



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(12) United States Patent Chen et al.

(10) Patent No.: US 6,261,679 B1
(45) Date of Patent: Jul. 17, 2001

(54) FIBROUS ABSORBENT MATERIAL AND METHODS OF MAKING THE SAME

(75) Inventors: Fung-jou Chen; Jeffrey Dean Lindsay; Jian Qin; Yong Li, all of Appleton, WI (US)

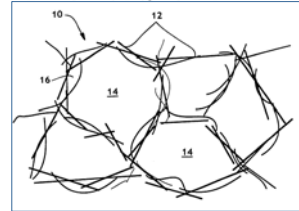
(73) Assignee: Kimberly-Clark Worldwide, Inc., Neenah, WI (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 09/083,873
(22) Filed: May 22, 1998
(51) Int. Cl. 7: B32B 5/22; B32B 5/28; B32B 7/12
(52) U.S. Cl.: 428/317.9; 425/4 C; 264/45.2; 264/45.3; 427/244; 428/317.1; 428/317.7
(58) Field of Search: 264/45.2, 45.3; 428/317.1, 317.7, 317.9; 427/244

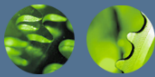
OTHER PUBLICATIONS

American Society for Testing Materials (ASTM) Designation: D 3574-86, "Standard Methods of Testing Flexible Cellular Materials—Slab, Bonded, and Molded Urethane Foams," published May 1986.
Hamdehova, Magdalena et al., "Hemostatic Foam," Chemical Abstracts, vol. 81, 1974, p. 343, 68597c.



Shutov, Dr. Fyodor A., "Cellular Structure and Properties of Foamed Polymers," Handbook of Polymeric Foams and Foam Technology, Oxford University Press, New York, 1991.

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交叉引證分析-1

A	B	C	D
專利號碼	前引證數量 (Forward Citations)	後引證數量 (Backward Citations)	專利家族數量 (Patent Families)
1			
2	US7147963	0	9
3	US7025159	0	29
4	US6989644	0	28
5	US7291421	0	27
6	US7218489	0	23
7	US7049792	0	22
8	US4490572	7	21
9	US619417	3	21
10	US7235326	0	21
11	US7154068	0	21
12	US5808469	7	19
13	US6714391	2	19
14	US7085112	0	19
15	US7034475	0	18
16	US5392873	8	17
17	US6262561	6	17
18	US6040561	0	17

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交叉引證分析-2

A	B	C	D
專利號碼	前引證數量 (Forward Citations)	後引證數量 (Backward Citations)	專利家族數量 (Patent Families)
1			
2	US6362627	10	4
3	US6551741	10	4
4	US5998969	9	4
5	US4392873	8	17
6	US4490572	7	21
7	US5808469	7	19
8	US566276	7	4
9	US6275003	7	2
10	US6262561	6	17
11	US6211646	6	9
12	US479085	6	7
13	US539318	6	7
14	US655264	6	6
15	US579831	5	12
16	US639871	5	6
17	US6160380	5	5
18	US6020717	5	3

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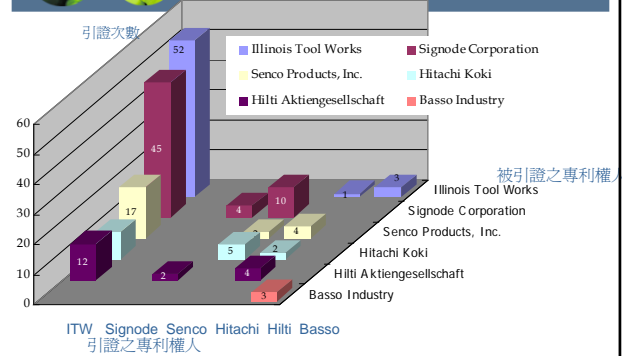
重要專利權人引證比較

公司名稱	被引證總數	自我引證數	被他人引證數	專利數	發明人數
Illinois Tool Works	154	52	102	36	44
Signode Corporation	86	0	86	4	4
Senco Products, Inc.	49	0	49	11	14
Hitachi Koki	47	5	42	7	17
Hilti Aktiengesellschaft	39	4	35	13	21
Smith, James E.	19	0	19	2	2
Olin Corporation	15	1	14	6	7
US Surgical Corp.	13	3	10	5	5
Duo-Fast Corporation	13	0	13	7	8
Swingline Inc.	11	2	9	6	10
Stanley-Bostitch, Inc.	10	4	6	7	13
Parker Manufacturing	9	0	9	3	2
Societe De Prospection	8	0	8	7	7
Monacelli, Umberto	6	1	5	3	1
Basso Industry	6	3	3	11	10
Arrow Fastener	6	0	6	5	1
Applied Tool	6	1	5	7	6

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重要專利權人相互引證



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心得

- 當專利量多時，引證族譜圖提供快速篩選歸納出重要專利的作法。
 - 源頭型專利
 - 被引證數多，影響力較大
 - 整合型專利
- 關鍵專利彼此間仍須檢查其claim與法律狀態。
- 創新性強的專利可能有突破性的技術內容。
- 引證族譜圖無法顯示專利家族資訊，必須用其他方式分析。

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專利技術佈局分析



紅海 vs. 藍海

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技術功效矩陣

技術	功效	改善可用空間	改善振動	提升進排氣與引擎效率	提升冷卻與散熱效率	操作維修容易	降低重量與成本
修改化油器	1			4		1	
修改進氣系統	2			7	1	1	
修改排氣系統	2			3	3		
修改空氣濾清器	2			3		1	
修改引擎懸吊	2		3	1			1
修改散熱器	2				1		1
修改油箱	1					2	
修改傳動軸	1						
修改水冷系統					1		
修改引擎設計	1			2			1

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創新模型的交互運用

- 挖洞式創新
 - 在專利空洞區創新，創造技術無人能及的「藍海」。
 - 專利侵權疑慮低
 - 商品化成功率不確定
 - 適合於研究機構、學術機構
- 聚焦式創新
 - 在專利競爭眾多的「紅海」區創新
 - 專利侵權疑慮高
 - 需進行侵權鑑定與規避設計
 - 商品化成功率高
 - 適合於企業
- 維持型創新
 - 在主流消費市場上，推出性能更好的創新。
 - 賣給要求高、「尚未滿足」的既有客戶，以獲取更高的利潤。
- 破壞式創新(山寨式創新)
 - 避開主流消費市場的創新
 - 主流市場外的邊緣客戶
 - 新通路或新市場
 - 產品功能往往略差，但費用相對低廉。
 - 不對稱動機 + 不對稱能力

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技術分析

- 技術／功效分類基本表
- 專利分析摘要表
- 技術／功效矩陣圖
- 技術分布鳥瞰圖
- 功效分布鳥瞰圖
- 技術歷年發展圖
- 功效歷年發展圖
- 指定公司歷年技術發展圖

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專利摘要表

- 將專利深層剖析, 依據
 - 專利標的物
 - 專利目的 (result)
 - 達成功效 (function)
 - 技術手段 (way)
 - 專利要件等
- 做成條理分明之簡表, 提供工程師一目了然的專利資訊, 以縮短研讀時間、提高效率, 並據以製作**技術／功效矩陣圖**, 作為迴避設計與專利佈局的參考。

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技術／功效矩陣圖

- 係就經篩選後之特定專利, 彙整相關專利, 分解其技術手段(way)與達成功效(result), 製成矩陣型態之統計表。
 - 1. 擬定技術分類架構
 - 2. 擬定功效分類架構
 - 3. 閱讀專利
 - 4. 製作專利分析摘要表
 - 5. 歸納整理
 - 技術鳥瞰圖
 - 功效鳥瞰圖
 - 6. 技術功效矩陣
- 由統計表中該領域之各種技術手段與功效, 可作為後續進行「**迴避設計**」、「**創新設計**」、「**專利組合與佈局**」與「**IP專業化**」之資料庫, 以架構專利網或衍生新的專利。

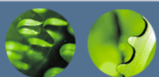
2009/5/12, 19 車慧中, 台灣大學「專利地圖與分析工具應用」-165-
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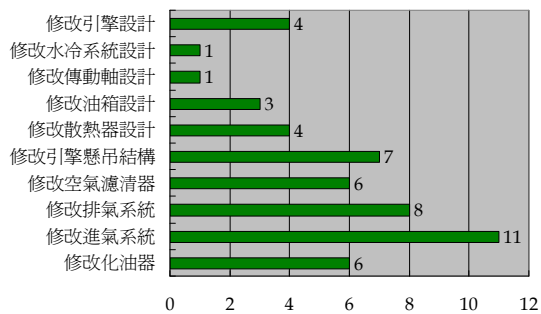
技術/功效分類架構

- 技術分類架構
 - 修改化油器
 - 修改進氣系統
 - 修改排氣系統
 - 修改空氣濾清器
 - 修改引擎懸吊
 - 修改散熱器
 - 修改油箱
 - 修改傳動軸
 - 修改水冷系統
 - 修改引擎設計
- 功效分類架構
 - 改善可用空間
 - 改善振動
 - 提升進排氣與引擎效率
 - 提升冷卻與散熱效率
 - 操作維修容易
 - 降低重量與成本

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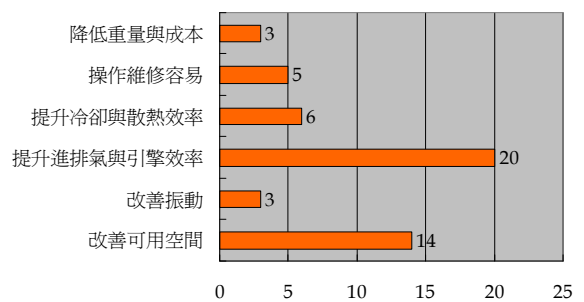
技術手段鳥瞰圖



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功效鳥瞰圖

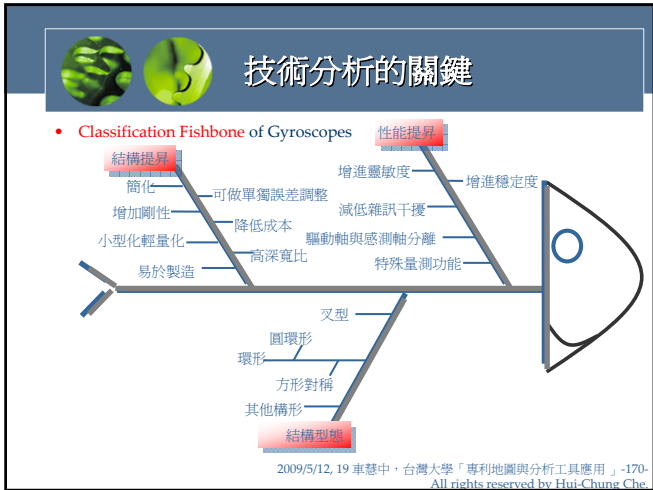


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技術功效矩陣

技術 \ 功效	改善可用空間	改善振動	提升進排氣與引擎效率	提升冷卻與散熱效率	操作維修容易	降低重量與成本
修改化油器	1		4		1	
修改進氣系統	2		7	1	1	
修改排氣系統	2		3	3		
修改空氣濾清器	2		3		1	
修改引擎懸吊	2	3	1			1
修改散熱器	2			1		1
修改油箱	1				2	
修改傳動軸	1					
修改水冷系統				1		
修改引擎設計	1		2			1

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 - 「合適」的分類遠較「正確」的分類重要
 - 宜由研發主管或資深RD負責
 - 他山之石、可以攻錯：「F-Term分類法」之借用
 - F-Term
 - 針對日本特許專利
 - 由(日本)財團法人工業所有權協立中心製作
 - 以專利文獻資料的技術思想，再以技術領域分類法做成的資料庫。
 - 參考F Term分類方式，可減少自訂分類的難度並縮短分類時間。
 - http://www5.ipdl.inpit.go.jp/pmgs1/pmgs1/pmgs_E
 - 使用方式：可由「重點IPC」開始，檢索其對應之F-Term，再由F-Term矩陣表挑選可用的技術分類項目。
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Patent Map Guidance

MENU NEWS HELP

• Inquiry

Click "FI" or "F-term". Or input FI / F-term code to the query box and click Search button.

Query

• FI Search

e.g. : A61K A61K6 C08L27/06 A61K7/46 A61K7/46,315@A

• F-term Search

e.g. : 5B 5B001

Indication type selection is effective in the lower hierarchies than the FI main group.

Indication Type List Target The same hierarchy

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MENU HELP TOP BACK NEXT Upper hierarchy

** FI Main Group / Facet Selection **

A main group or Facet contained in "G01C" can be chosen on this screen.
Click on a main group or Facet to display the lower hierarchy.

- G03B 37/00
- 13/00 Surveying specially adapted to open water, e.g. sea, lake, river, canal (liquid level metering G01F; measuring liquid velocity G01P; determining existence or flow of underground water G01V)
- 15/00 Surveying instruments or accessories not provided for in groups G01C 1/00 to G01C 13/00
- 17/00 Compasses; Devices for ascertaining true or magnetic north for navigation or surveying purposes (using gyroscopic effect G01C 19/00; for geophysical or prospecting purposes G01V 3/00)
- 19/00 Gyroscopes; Turn-sensitive devices with vibrating masses; Turn-sensitive devices without moving masses
- 21/00 Navigation; Navigational instruments not provided for in preceding groups (measuring distance traversed on the ground by a vehicle G 01 C 22/00; measuring linear or angular speed or acceleration G 01 P)

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MENU HELP TOP BACK NEXT Former main group
Following main group Main group selection

**** FI (List Indication) ****

This screen shows all FIs contained in the main group "G01C19/00".

Click on a subgroup after you select Indication Type.
 Refer to HELP for the details of the Indication Type.

Indication Type List Target The same hierarchy

- 19/00 Gyroscopes; Turn-sensitive devices with vibrating masses; Turn-sensitive devices without moving masses 2F105
 - A Using of non-rotating fluids, gas rate type 2F105
 - Z Others 2F105
- 19/02 Rotary gyroscopes 2F105
 - A Triaxial datum devices, platforms 2F105
 - B For stabilising vehicles, optical instruments 2F105
 - Z Others 2F105

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MENU HELP TOP BACK NEXT

**** F-term List ****

This screen shows the F-term list of the theme "2F105".

2F105		Gyroscopes									
AA APPLICATIONS	AB OBJECTIVES	AC FORMS OF VIBRATING GYROSCOPES	AD COMPOSITION OF VIBRATING GYROSCOPES	AE	AF	AG	AH	AI	AJ	AK	AL
AA01	AB01	AC01	AD01	AE01	AF01	AG01	AH01	AI01	AJ01	AK01	AL01
AA02	AB02	AC02	AD02	AE02	AF02	AG02	AH02	AI02	AJ02	AK02	AL02
AA03	AB03	AC03	AD03	AE03	AF03	AG03	AH03	AI03	AJ03	AK03	AL03
AA04	AB04	AC04	AD04	AE04	AF04	AG04	AH04	AI04	AJ04	AK04	AL04
AA05	AB05	AC05	AD05	AE05	AF05	AG05	AH05	AI05	AJ05	AK05	AL05
AA06	AB06	AC06	AD06	AE06	AF06	AG06	AH06	AI06	AJ06	AK06	AL06
AA07	AB07	AC07	AD07	AE07	AF07	AG07	AH07	AI07	AJ07	AK07	AL07
AA08	AB08	AC08	AD08	AE08	AF08	AG08	AH08	AI08	AJ08	AK08	AL08
AA09	AB09	AC09	AD09	AE09	AF09	AG09	AH09	AI09	AJ09	AK09	AL09
AA10	AB10	AC10	AD10	AE10	AF10	AG10	AH10	AI10	AJ10	AK10	AL10

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專利分類摘要表

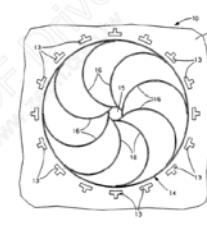
序號: 04 Microstructure for vibratory gyroscope. 分析人: 車懸中 分析日期: 2002/5/15
 Patent Number: US5450751
 Publication date: 1994-11-09
 Inventor(s): EDDY DAVID STURGE (US); PUTTY MICHAEL WILLIAM (US)
 Applicant(s): GEN MOTORS CORP (US)
 Application Number: EP1994020913 19940405
 Priority Number(s): US19930055880 19930504
 IPC Classification: G01C19/06; G01P15/08
 Equivalent patents: EP0623807B1, DE69411990D, DE69411990T, JP7012575

專利目的

- 提高靈敏度
- 增加穩定度
- 減少雜訊干擾
- 增加剛性
- 小型化、輕量化
- 易於製造
- 降低成本
- 可簡單調整
- 高深寬比

結構型態

- 叉型
- 圓環形
- 方形對稱
- 其他構形



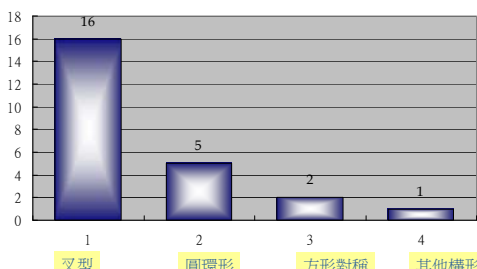
分析工具應用」-177-
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專利分類清單

序號	叉型	結構特徵			專利目的							序號					
		圓環形	方形對稱	其他	增進靈敏度	增進穩定度	減低雜訊干擾	驅動軸與感測軸分離	特殊量測功能	簡化	增加剛性		小型化、輕量化	易於製造	降低本	可簡單調整	高深寬比
1		1				1											1
2	1					1	1										2
3	1					1											3
4	1	1			1	1						1					4
5	1				1	1	1					1	1	1			5
6	1				1	1						1					6
7	1				1	1		1				1					7
8	1				1	1						1	1				8
9	1	1			1	1						1					9
10	1				1	1		1				1					10
11	1	1			1	1						1					11
12	1				1	1						1					12
13	1				1	1						1					13
14	1	1			1	1						1					14
15	1				1	1			1			1					15
16			1		1	1				1		1			1		16
17			1		1	1						1			1		17
24	1											1					24

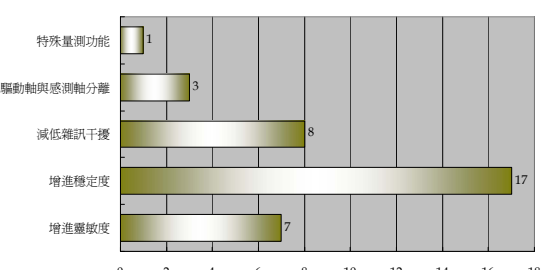
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結構分類鳥瞰圖



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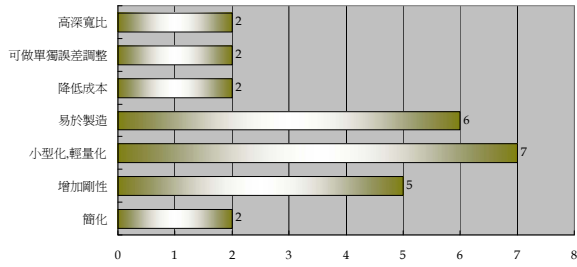
功效鳥瞰圖-性能提升



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功效鳥瞰圖-結構提升



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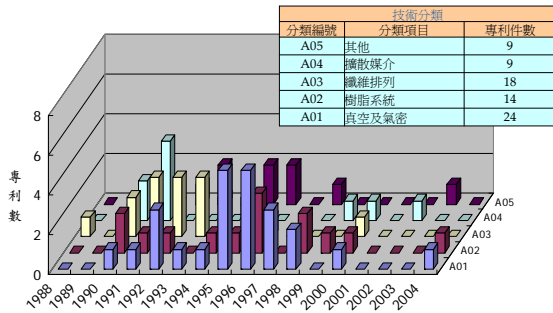
結構/功效矩陣圖

技術(結構)	叉型結構	圓環形	方形對稱	其他結構
增進靈敏度	5,8,22,23	4,9	17	
增進穩定度	2,3,6,7,10,12,13,18,19,20,21,22	4,9,11,14	1	
減低雜訊干擾	2,5,13,20,21,22,23	14		
驅動軸與感測軸分離	6,7,10			
特殊量測功能	15			
簡化			1	16
增加剛性	20,21,22,23	24		
小型化,輕量化	6,7,8,10	4	17	16
易於製造	3,5,8,12,19	11		
降低成本	5	24		
可做單獨誤差調整	19			16
高深寬比	18	24		

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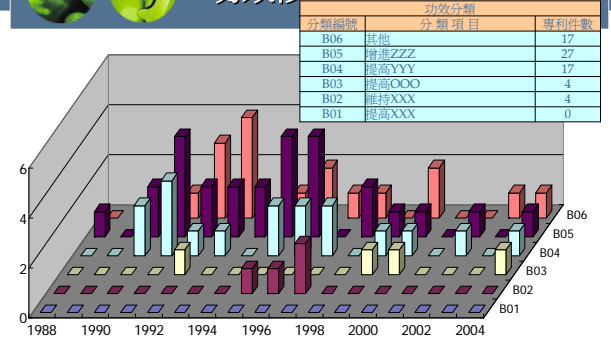
技術領域歷年發展圖



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功效領域歷年發展圖



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技術/功效矩陣

功效 \ 技術	真空及氣密 (A01)	樹脂系統 (A02)	纖維排列 (A03)	擴散媒介 (A04)	其他 (A05)
提高(B01)					
維持(B02)	4	1	1		
提高(B03)	3	3		2	
提高(B04)	11	6	2	8	
增進 (B05)	14	9	11	6	5
其他(B06)	6	5	7	1	5

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法律狀態分析



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Legal status

專利	專利權人	法律狀態
US4762740	Ford Motor Company	Expired
US4892764	Loctite Corp, CT	Expired
US4902215	Seemann, III, William H.	from Seemann, III, William H. to SCRIMP SYSTEMS, LLC (1995-01-17) from SCRIMP SYSTEMS, L.L.C. to TPI TECHNOLOGY, INC. (2001-05-21)
US4946640	Shell Oil Company	Expired
US4988469	United Technologies Corp	Expired
US5009821	Libbey-Owens-Ford Co.	Expired
US5035602	Ford Motor Company	Expired
US5039465	The Budd Company	Expired
US5041260	Ford Motor Company	Expired
US5045251	Ford Motor Company	Expired
US5052906	Seemann Composite Systems, Inc.	from SEEMANN COMPOSITE SYSTEMS, INC. to SCRIMP SYSTEMS, LLC (1995-01-17) from SCRIMP SYSTEMS, L.L.C. to TPI TECHNOLOGY, INC. (2001-05-21)

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維護費繳納查詢 (US5344140)

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US5344140

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07/1997,161 GOLF CLUB HEAD AND METHOD OF FORMING SAME

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US5344140

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Patent Number: 5344140
Customer Number: 000000

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201 S LAKE AVENUE
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PASADENA CA 91101

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5344140	\$1,800.00	\$65.00	07:997,161	09/06/94	11/28/92	12	Yes	PAID	16317

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Patent Number (include special characters: e.g. commas): 5009821
Application Number (must be 8 numeric digits - See NOTE below): 07314767

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Patent Bibliographic Data 04/08/2006 08:26 AM

Patent Number: 5009821 Application Number: 07314767
Issue Date: 04/23/1991 Filing Date: 02/23/1989
Title: **NOVA PROCESS FOR THE PREPARATION OF POLYMER BE ADHESIVE**

Status: **Expired, No 4th year fee paid by: 04/24/1995** Expiry: Large
Window Opens: 04/23/1994 Surcharge Due: 10/26/1994 Expiration: 04/23/1999
Fee Amt Due: \$0.00 Surchg Amt Due: \$0.00 Total Amt Due: \$0.00

Surcharge Fee Code:
Most recent events (up to 7):
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1995-11-17 Maintenance Fee Remainder Waived.
1994-02-28 Fee Number Assigned.
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Patent Bibliographic Data 11/11/2006 01:26 AM

Patent Number: 622405 Application Number: 1380579
Issue Date: 11/30/2004 Filing Date: 06/26/2003
Title: ELECTRICAL CONNECTOR ASSEMBLY
Status: 4th year fee window opens: 11/30/2007 Expiry: N/A Large
Window Opens: 11/30/2007 Surcharge Due: 04/02/2008 Expiration: N/A
Fee Amt Due: Window not open Surchg Amt Due: Window not open Total Amt Due: Window not open
Fee Code: 1551 MAINTENANCE FEE DUE AT 3.5 YEARS
Surcharge Fee Code:
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M/C 480-416-202
PO BOX 3032
TROY, MI
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Assignments on the Web > Patent Query

Patent Assignment Abstract of Title

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Total Assignments: 5
Patent #: 562904
Issue Date: 10/01/1991
Application #: 07433824
Filing Date: 12/21/1989

Inventor: WILLARD H. HEDGANN
Title: PLASTIC TRANSFER MOLDING APPARATUS FOR THE PRODUCTION OF FIBER REINFORCED PLASTIC STRUCTURES

Assignment 1
Ref/Frame: 007421001
Recorded: 01/17/1991
Pages: 3
Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).
Assignee: HEDGANN, COLLEEN M. SYSTEMS, INC.
Assignee: HEDGANN, COLLEEN M., LLC
MARKET STREET P.O. BOX 128 WARREN, RI 02881
Exec Date: 01/08/1991
Correspondent: WENDHARTEN, SCHROON, OGDENBEN & HAYES
STANLEY M. SCHROON
TEN P.O. SQUARE
BOSTON, MA 02109

Assignment 2
Ref/Frame: 11161563
Recorded: 03/21/2001
Pages: 1
Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).
Assignee: HEDGANN, COLLEEN M., LLC, A RHODE ISLAND LIMITED LIABILITY COMPANY
Assignee: THE HEDGANN GROUP, INC.
A DELAWARE CORPORATION
773 MARKET STREET, P.O. BOX 128
WARREN, RHODE ISLAND 02881
Exec Date: 11/03/1998
Correspondent: ECKERT, SEAGAN, CHRYN & SHELLOTT, LLC
DANIEL C. ABLETS
600 GRANT STREET
44TH FLOOR
PITTSBURGH, PA 15219

Assignment 3
Ref/Frame: 11161561
Recorded: 10/12/2004
Pages: 21
Conveyance: SECURITY INTEREST (SEE DOCUMENT FOR DETAILS).

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US patent 審查歷程查詢

侵權鑑定與迴避設計時一定要做

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09/726,842 Crush-resistant polymeric microcellular wire coating

Application Number	Transaction History	Continuity Data	Published Documents	Publication Dates	Address & Attorney/Agent
Application Number: 09/726,842	Customer Number:				
Filing or 371 (c) Date: 11-30-2000	Status: Abandoned - Failure to Respond to an Office Action				
Application Type: Utility	Status Date: 03-27-2002				
Examiner Name: LAMB, BREHDA A	Location: FILE REPOSITORY (FRANCONIA)				
Group Art Unit: 1734	Location Date: 07-02-2003				
Confirmation Number: 3256	Earliest Publication No: US 2002-0033132 A1				
Attorney Docket Number: T0426/714 T30	Earliest Publication Date: 03-21-2002				
Class / Subclass: 118/407	Patent Number: -				
First Named Inventor: Roland Kim, Somerville, MA	Issue Date of Patent: -				

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09/726,842 Crush-resistant polymeric microcellular wire coating

Application Number	Transaction History	Continuity Data	Published Documents	Publication Dates	Address & Attorney/Agent
Date	Transaction Description				
07-01-2003	Mail Abandonment for Failure to Respond to Office Action				
06-27-2003	Abandonment for Failure to Respond to Office Action				
12-17-2002	Mail Final Rejection (PTOL - 326)				
11-18-2002	Final Rejection				
09-03-2002	Date Forwarded to Examiner				
07-09-2002	Response after Non-Final Action				
07-09-2002	Request for Extension of Time - Granted				
07-22-2002	Information Disclosure Statement (IDS) Filed				
01-31-2003	Mail Non-Final Rejection				
12-12-2001	Non-Final Rejection				
04-05-2002	Case Docketed to Examiner in GAU				
03-27-2001	Case Docketed to Examiner in GAU				
02-21-2001	Application Dispatched from OIPE				
01-18-2001	JPIV Scan & PACR Auto Security Review				
01-18-2001	Correspondence Address Change				
01-18-2001	Correspondence Address Change				
11-30-2000	Initial Exam Team nn				

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US5598138

09-23-1996	Mailroom Date of Drawing(s)
07-12-1996	Mail Corrected Notice of Allowance
07-12-1996	Corrected Notice of Allowance
06-10-1996	Mail Notice of Allowance
06-10-1996	Notice of Allowance Data Verification Completed
06-08-1996	Notice of Allowance to Examiner
03-25-1996	Response after Non-Final Action
03-08-1996	Case Forwarded to Examiner in GAU
02-26-1996	Mail Non-Final Rejection
02-20-1996	Non-Final Rejection
01-03-1995	Information Disclosure Statement (IDS) Filed
08-05-1995	Case Docketed to Examiner in GAU
05-26-1995	Application Captured on Microfilm
05-18-1995	Application In Now Complete
02-13-1995	Notice Mailed--Application Incomplete--Filing Date Assigned

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File wrapper

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專利家族的族譜分析

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族譜分析(母系)

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族譜分析(子系)

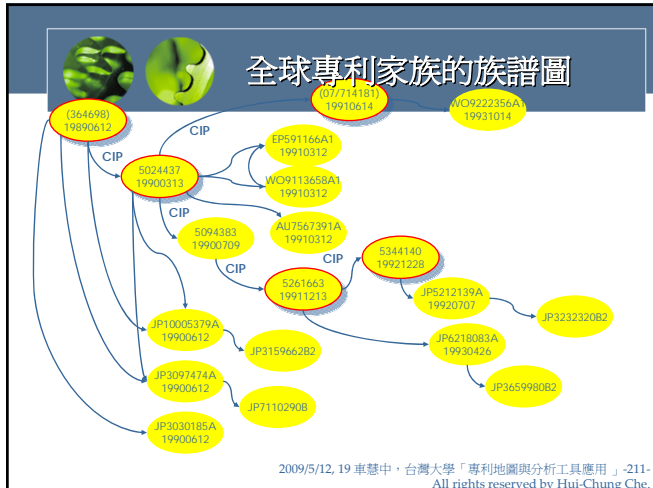
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全球專利家族

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美國專利家族的族譜圖

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Claim

- 兼具「法律」與「技術」雙重特性。
- 專利說明書中最關鍵的部份。
- 係一專利所涵蓋權利範圍界定依據。
- 發明的最大權利。
 - (TW專利法第56條)發明專利權範圍,以說明書所載之申請專利範圍為準,於解釋申請專利範圍時,並得審酌發明說明及圖式。
- 必須為說明書與圖示所支持。
 - (TW專利法第26條)申請專利範圍應明確記載申請專利之發明,各請求項應以簡潔之方式記載,且必須為發明說明及圖式所支持。

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解釋claim-中心限定原則

- 專利保護範圍並非局限於申請專利範圍之記載,以申請專利範圍為中心而承認在其外側尚有一定範圍之技術延伸。
- 此學說之觀點係認為創作本身是一技術思想,而申請專利範圍所記載之文字內容僅係抽象思想具體化之典型例,故創作所及保護範圍並非止於文字記載而已,應得以某一程度之延伸解釋。
- 採用者有大陸法系國家,如德、日、荷等國。
- 優點為創作發明之要旨容易理解,而其缺點為權利範圍有擴張解釋之虞。
 - 以claim中的必要元件(必要特徵)為考量
 - 非必要元件(非必要特徵)的差異可以忽略不計,視為均等。
 - 容許有較大的均等擴張範圍

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中心限定原則

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何謂必要元件/必要特徵?

- Jepson type又稱「二段式」
 - (前言).....the **improvement** comprising...(主體)
 - (前言).....**characterized in that**...(主體)
 - (前言).....其特徵在於.....(主體)
 - (前言).....其改良在於.....(主體)
- 前言部份描述相關之習知技術或限制條件
- 主體部份為該創作或發明之特點或改良的特徵
- 一種手搖鼓,包括一空心扁圓柱狀的本體,該本體兩端口分別張佈一層薄膜鼓面,從本體的一側邊垂直延伸一桿體,其特徵為:
 - 在相距一直徑兩端的本體兩側面上分別經由一柔軟線材連接一槌體者。

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解釋claim-周邊限定原則

- 申請專利範圍係申請人所主張專利保護之創作範圍，擴張解釋則不予承認，凡是不包含於申請專利範圍內而記載於說明書上之技術內容，乃為專利權效力所不及。
 - 必要元件特徵與次要特徵均需同時考慮
 - Ex 圖規
- 此學說之觀點認為專利係創作者與社會大眾之間所締結的契約，當解釋專利權之範圍時亦應依類似於契約解釋之精神來規範。
- 採用者有英、美等海洋法系等國。
- 優點為權利範圍容易界定理解，缺點係申請人為防止保護範圍有所遺漏，致造成申請專利範圍之項數過於繁雜。
- 由於國際(含台灣)皆容許申請專利範圍「多項」之存在，因此其獨立項界定之範圍較廣，常佐以附屬項請求，故較適合以週邊限定原則來解釋其申請專利範圍。

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內部證據與外部證據

- 用於解釋申請專利範圍
 - 若內部證據足以使申請專利範圍清楚明確，則無須考慮外部證據。
 - 若外部證據與內部證據之解釋有衝突者，優先採用內部證據。
- 內部證據
 - claim文字本身(查字典)
 - 說明書內容與圖示
 - 申請歷史檔案
 - 自申請專利至維護專利權過程中，申請時原說明書以外之文件檔案，如申請、舉發或行政救濟階段之補充、修正文件、更正文件、申復書、答辯書、理由書或其他相關文件等。
- 外部證據
 - 發明人或創作人之其他論著著作與專利
 - 相關前案(如追加案(CA/CIP)之母案、主張優先權之前案等)
 - 專家證人之見解
 - 權威著作、專業辭典、工具書、教科書

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Claim文字很重要

- (二)本案發明名稱、說明書及申請專利範圍多處出現之針測卡(probe card)應統一修正為國立編譯館之學術專有名詞「探針卡」，不符合專利法第26條第4項暨其施行細則第15條第4項之規定。
- (三)請求項9未以單句為之，不符合專利法第26條第4項暨其施行細則第18條第6項之規定。
- (四)本案除上述理由外，於現在時點並未發現不予專利理由，如有發現新的不予專利理由時，會再通知不予專利理由。

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Claim

- 專利申請範圍包括『獨立項』與『附屬項』，無論是獨立項或附屬項每一項均為一單一完整句子，句號只能於最後面出現，而於該項中間可以使用逗號、冒號或分號等做必要的分隔。
- 獨立項(Independent claim)係單獨存在的文字敘述，並不依附於任何權利請求項，獨立項須載明申請專利之標的、構成及實施之必要技術內容與特點。
- 獨立項應敘明申請專利之標的及其實施之必要技術特徵(專利法施行細則第18條)
- 申請專利範圍第1項一定是一獨立項，且當每一獨立項之構成要件或條件愈多時，其所受之限制就愈多，故相應之權利範圍就愈小。
- 一件專利可以有多个獨立項
 - (專利法第32條)二個以上發明，屬於一個廣義發明概念者，得於一申請案中提出申請。
 - (施行細則第18條)發明或新型之申請專利範圍，得以一項以上之獨立項表示。

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獨立項(TW360550)

- 一種高爾夫球桿頭，係具有擊球面部分與擊球面背面部分的球桿頭，擊球面部分係採用比重在5以下的低比重金屬，而擊球面背面部分則採用該低比重金屬與比重在7以上的高比重金屬預先冶金地熔接而成的護面金屬材料，同時，該低比重金屬與該護面金屬材料的低比重金屬利用熔接而互相接合成一體化，形成球桿頭。
- 一種高爾夫球桿頭，係在具有擊球面與擊球面背面的球桿頭，擊球面部分係採用比重在5以下的低比重金屬，而擊球面背面部分則採用其中一部份使用與該擊球面部分相同的低比重金屬及比重在7以上的高比重金屬施行預先冶金的熔接而成的護面金屬材料，在該背面靠外面部位處則配置該高比重金屬，同時，該擊球面之低比重金屬與背面複合材料之低比重金屬，則依接合而形成一體化之球桿頭者。

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獨立項(US '410)

- 1. A drylaid nonwoven material comprising bicomponent fibres each fibre comprising:
 - A) a high melting polyolefin component; and
 - B) a low melting polyolefin component
 - 1) having a melting point at least 4 DEG C. lower than the melting point of said high melting polyolefin component,
 - 2) constituting at least a part of the surface of said bicomponent fibre, and
 - 3) comprising a non-grafted polyolefin component and a grafted polyolefin component
 - a) wherein said grafted polyolefin component has been grafted with an unsaturated dicarboxylic acid or an anhydride thereof.

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附屬項

- 每一附屬項必須依附於先前之某一獨立項，可依附於先前之另一附屬項。
- 典型的結構為
 - 如申請專利範圍第x項所述之XXX，其中.....
 - The XXX according to **claim 1**, wherein ...
 - The XXX of **claim 1**, wherein ...
- 附屬項用於進一步增加更詳盡的限制條件至其所依附之請求項
 - 依附的請求項可以為獨立項或附屬項
- 附屬項應敘明所依附之項號及申請標的，並敘明所依附請求項外之技術特徵；於解釋附屬項時，應包含所依附請求項之所有技術特徵。
 - 附屬項權利限制條件，為含有其所依附之請求項(獨立項或附屬項)的全部內容在內，故權利範圍較所依附之項目小。
 - Claim的限制條件愈多，權利範圍愈窄
- 附屬項所依附的項數可以多於一項，此種附屬項稱為**多項附屬項**，多項附屬項中對所依附之各項須以「或」來連接。

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附屬項

- 附屬項(TW360550)
 - 4.如申請專利範圍第1項所述高爾夫球桿頭,其中該擊球面與該護面金屬材料係在利用熔接而接合成一體化後,更進一步,施行切削・研磨加工,而形成球桿頭者。
 - 5.如申請專利範圍第2項所述高爾夫球桿頭,其中該擊球面與背面之間,係形成有空間者。
- 多項附屬項(TW360550)
 - 3.如申請專利範圍第1或2項所述高爾夫球桿頭,其中,該護面金屬材料係由預先冶金接合不同種類金屬而製成板狀複合材料,然後再依照預定大小進行切削・衝切,而該擊球面與該護面金屬材料係利用熔接而接合成一體化者。

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附屬項

- 附屬項(US'140)
 - 2. A drylaid nonwoven material according to claim 1 wherein the grafted polyolefin component
 - 13. A method according to claim 12, wherein the fibrous web further comprises.....
- 多項附屬項
 - 4. A drylaid nonwoven material according to claim 1, 2 or 3, wherein the grafted polyolefin component

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附屬項

- 附屬項之技術內容與其所依附之請求項內容相抵觸者，權利無效。
 - 建議以舉發程序釐清之
- 1. 一種高爾夫球桿頭,係具有擊球面部分與擊球面背面部分的球桿頭,擊球面部分係採用比重在5以下的低比重金屬,而擊球面背面部分則採用該低比重金屬與比重在7以上的高比重金屬預先冶金地熔接而成的護面金屬材料,同時,該低比重金屬與該護面金屬材料的低比重金屬利用熔接而互相接合成一體化,形成球桿頭。
- 2. 如申請專利範圍第1項所述高爾夫球桿頭,其中該低比重金屬的比重亦可以為5.5。

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Claim之結構

- 典型的claim結構為
Preamble + Transition + body of claim
前言 過渡片語 主體
- 前言：為該專利標的之說明
 - 侵權賠償的計價基礎
- 過渡片語：標的與主體之關係
- 主體：
 - 主體為該專利標的為達到預期功效所運用之必要元件(必要之技術手段)
 - 主體必須包含
 - 必要之元件 (製程)
 - 元件與元件間的連結關係 (製程與製程間的連結關係)
 - (各元件所發揮的功能非必要)

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Transition

- comprise/comprising/including
 - 至少包含/主要包括
 - 開放式，權利範圍包含以下所述元件(a,b,c)，但不排除其他元件(d)包含其中
- consisting/consist of/consisting of
 - 組成元素為/係由下列所構成
 - 閉鎖式，權利範圍僅包含列舉的元件，增加/減少一個必要元件便可迴避掉權利涵蓋範圍。
- consisting essentially of
 - (主要組成元素為...)
 - 介於開放式及閉鎖式之間，係指在**一群指明的項目內**，只能加入一些**次要項目**

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Claim之結構(US '541)

- 1. A bicomponent fiber comprising a core of a polyester or polyamide and a sheath of grafted linear ethylene polymer having succinic acid or succinic anhydride groups grafted thereon, said sheath covering or encapsulating said core.
- Preamble**
 - A bicomponent fiber
- Transition**
 - comprising
- Body**
 - a core of a polyester or polyamide and a sheath of grafted linear ethylene polymer having succinic acid or succinic anhydride groups grafted thereon, said sheath covering or encapsulating said core.

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Claim之結構(US '410)

- A drylaid nonwoven material comprising bicomponent fibres each fibre comprising:
 - A) a high melting polyolefin component; and
 - B) a low melting polyolefin component
 - 1) having a melting point at least 4 DEG C. lower than the melting point of said high melting polyolefin component,
 - 2) constituting at least a part of the surface of said bicomponent fibre, and
 - 3) comprising a non-grafted polyolefin component and a grafted polyolefin component
 - a) wherein said grafted polyolefin component has been grafted with an unsaturated dicarboxylic acid or an anhydride thereof.

Transition

Body

Preamble

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解析claim是爲了迴避設計

	Claim	迴避設計
釜底抽薪	A	A A
	B	B B
	C	C C
移花接木	A	A
	B	B
	C	D
偷天換日	A	E
	B	F
	C	G

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如何解析claim?

- 1. In a connector assembly for connecting an insulated electrical wire to a blade contact having generally parallel opposite sides and a generally centrally located locking recess, the connector assembly including a generally U-shaped, stamped and formed sheet metal terminal including a pair of leg portions joined to a bight portion, the leg portions defining a longitudinal terminal axis generally centrally therebetween and having free ends with insulation displacement slots for electrically connecting the terminal to the insulated wire, the bight portion including a slot extending into the leg portions and defining a bifurcated contact formation for receiving the blade contact, wherein the improvement in said terminal comprises: said bight portion being indented on one side of the longitudinal terminal axis to define an offset portion inwardly of one of the leg portions, said slot and bifurcated contact formation extending into the offset portion, and a locking projection inside the slot at the offset portion for lockingly engaging the locking recess of the blade contact.

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US5280371

- 東森新聞報 2005/04/13 18:14 記者楊伶雯 / 台北報導
- 奇美電子和Honeywell宣佈, 雙方簽署一項專利授權協定, 授權奇美電使用 Honeywell專利5280371, 可提高液晶顯示器產品的影像亮度, 同時降低干擾影響。
- 奇美電總經理何昭陽表示, 奇美電與長期合作夥伴Honeywell所簽署的交互授權協定, 可證明奇美電長期爲客戶提供最有價值、最高技術產品所作的努力, 客戶將從液晶顯示器產品的優越性能中具體受益。
- Honeywell智慧財產權執行長Loria Yeadon表示, 很高興透過授權協定和奇美電子繼續合作, 奇美電的客戶也能從Honeywell的液晶技術中獲益。
- Honeywell負責智慧財產權保護的副總裁John Donofrio說, Honeywell將繼續投入大量資金進行基礎技術的研究, 同時, 鼓勵其他公司能夠在得到 Honeywell授權後充分利用該研究成果。
- 何昭陽同時補充, 奇美電尊重其他公司的智慧財產權, 同時也會積極發展自己的專利技術。

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US5280371

United States Patent [19] Patent Number: 5,280,371
 McCartney, Jr. et al. [45] Date of Patent: Jan. 18, 1994

US005280371A

[54] DIRECTIONAL DIFFUSER FOR A LIQUID CRYSTAL DISPLAY

[75] Inventors: Richard I. McCartney, Jr., Scottsdale; Daniel D. Snydal, Glendale; Karen E. Jackiewicz, Goodyear, all of Ariz.

[73] Assignee: Honeywell Inc., Minneapolis, Minn.

[21] Appl. No.: 911,547

[22] Filed: Jul. 9, 1992

[51] Int. Cl.⁵ G02F 1/133

[52] U.S. Cl. 359/40, 359/69

[58] Field of Search 359/69, 40, 41

[56] References Cited

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5,181,041 11/1992 Ahsinab et al. 359/40

FOREIGN PATENT DOCUMENTS

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2-14822 8/1990 Japan 359/69

OTHER PUBLICATIONS

IBM Corp., "Polarized backlight for liquid crystal display", IBM Technical Disclosure Bulletin, vol. 33, No. 1B, Jan. 1990, pp. 143-144.

Primary Examiner—William L. Sikes
 Assistant Examiner—Hay Mai
 Attorney, Agent, or Firm—Dale E. Jepsen; A. Medved

[57] ABSTRACT

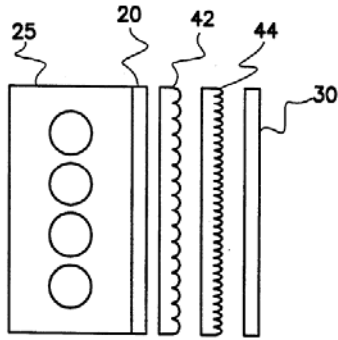
A display apparatus including a light source, a liquid crystal panel, and one or more directional diffuser lens arrays disposed therebetween provides a tailored variation of luminance with viewing angle, a uniform variation of luminance with viewing angle within a first predetermined range of viewing angles and a concentration of light energy within a second predetermined range of viewing angles.

3 Claims, 11 Drawing Sheets

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特徵圖示



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Claim 1

- 1. A display apparatus comprising:
 - a light source;
 - a liquid crystal panel mounted adjacent to said light source for receiving light from said light source; and
 - first and second lens arrays, each having a plurality of individual lenslets, disposed between said light source and said liquid crystal panel for providing a predetermined variation with viewing angle of light transmission from said light source through said lens arrays and said liquid crystal panel,
 - wherein said liquid crystal panel comprises a plurality of pixels arranged in rows and columns, and wherein the number of rows of pixels per unit height, or pitch, of the liquid crystal panel is a first value; the number of lenslets per unit height, or pitch, of said first lens array is a second value which is less than said first value; and the number of lenslets per unit height, or pitch, of said second lens array is a third value which is greater than said first value.

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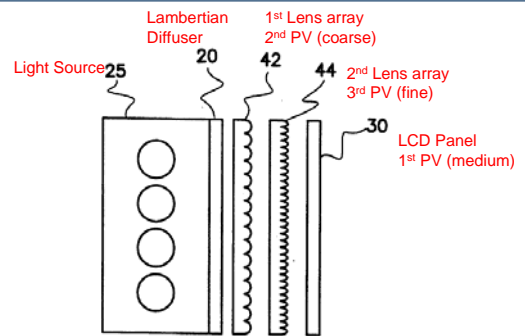
Claim Contruction

- 1. A display apparatus comprising:
 - a light source (25);
 - a liquid crystal panel (30) mounted adjacent to said light source for receiving light from said light source; and
 - first (42) and second (44) lens arrays, each having a plurality of individual lenslets, disposed between said light source (25) and said liquid crystal panel (30) for providing a predetermined variation with viewing angle of light transmission from said light source (25) through said lens arrays (42, 44) and said liquid crystal panel (30),
 - wherein said liquid crystal panel (30) comprises a plurality of pixels arranged in rows and columns, and wherein the number of rows of pixels per unit height, or pitch, of the liquid crystal panel (30) is a first value (1st PV); the number of lenslets per unit height, or pitch, of said first lens array (42) is a second value (2nd PV) which is less than said first value (1st PV); and the number of lenslets per unit height, or pitch, of said second lens array (44) is a third value (3rd PV) which is greater than said first value (1st PV).

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特徵圖示



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Design around

- To modify the PV's
 - Claim 1: 3rd PV > 1st PV > 2nd PV
 - Design around:
 - 3rd PV = 2nd PV + misalignment
 - 1st PV = 2nd PV + misalignment
 -
- To eliminate one or both of the lens arrays
 - Claim 1: two lens arrays
 - Design around:
 - One lens array + diffusing film(s)

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專利組合



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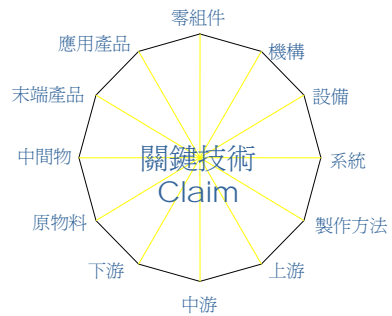
專利組合之目的

- 強化專利運用之成功率
- 保護研發成果
- 擴大運用態樣
- 防止同業之迴避設計
- 降低被舉發無效之機率
- 提高授權的成功機率
- 提高訴訟攻擊的成功機率
- 降低被訴訟攻擊之機率
- 提高併購/被併購的優勢
- 提高專利價值

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專利組合方法



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Claim之結構

- 典型的claim結構為
Preamble + Transition + body of claim
前言 過渡片語 主體
- 前言：為該專利標的之說明
- 侵權賠償的計價基礎
- 過渡片語：標的與主體之關係
- 主體：
- 主體為該專利標的為達到預期功效所運用之必要元件(必要之技術手段)
- 主體必須包含
 - 必要之元件(製程)
 - 元件與元件間的連結關係(製程與製程間的連結關係)
 - (各元件所發揮的功能非必要)

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專利佈局



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專利佈局

關鍵技術
Claim



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專利佈局

關鍵技術
Claim



A產業的技術用在B產業，可以申請專利。
A產品的技術用在B產品，可以申請專利。

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LG's side-mount LCM



專利佈局實例

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問題

- 只有四顆螺絲釘.....
 - 可以申請專利嗎?
 - 值得申請專利嗎?
 - 該怎樣申請專利?

- 看看LG怎麼做.....

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LG's US5835139

United States Patent [19] **Patent Number: 5,835,139**
 Yun et al. [45] **Date of Patent: Nov. 10, 1998**

[54] **COMPUTER HAVING LIQUID CRYSTAL DISPLAY BETWEEN FRAMES ATTACHED AT THE EDGES**

[75] **Inventors:** Hee Young Yun, Kumi Kyo Hun Moon, Kimchoon; Byoung Yun Lee, Suwoon, Yong Bum Kim, Kumi, Young Un Bang, Ansan, all of Rep. of Korea

[73] **Assignee:** LG Electronics Inc., Seoul, Rep. of Korea

[21] **Appl. No.:** 888,164
 [22] **Filed:** Jul. 3, 1997

[30] **Foreign Application Priority Data**
 Apr. 8, 1997 [KR] Rep. of Korea 1997-12899
 Apr. 17, 1997 [KR] Rep. of Korea 1997-14278

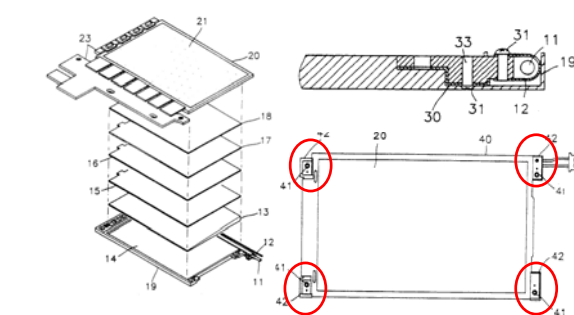
[51] **Int. Cl.:** G02F 1/1333, H05K 5/001
 [52] **U.S. Cl.:** 349/58, 361/681
 [58] **Field of Search:** 349/58, 1, 361/681

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 IBM Technical Disclosure Bulletin, vol. 37, No. 12, Dec. 1994 entitled "Cell Support Assembly without Screw".
 IBM Technical Disclosure Bulletin, vol. 39, No. 1, Jan. 1996, S. 71-73.
 High Efficiency Back Light for LCD, IBM Technical Disclosure Bulletin, vol. 33, No. 9, Feb. 1991, S. 261, 262. -249-

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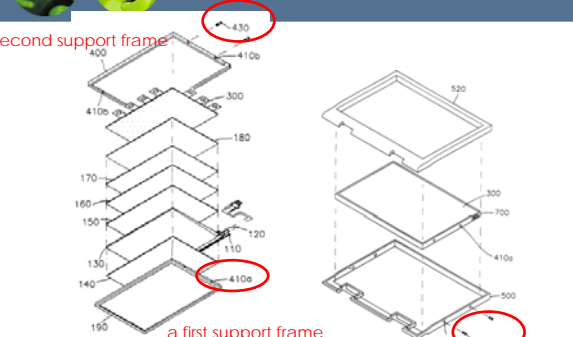
The prior art



傳統的作法, 用四顆螺絲正面鎖住液晶面板的外框
 鎖得很牢, 但是造成外框太厚了.....

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LG這樣改.....



LG把四顆螺絲改從側邊鎖住液晶面板的外框
 簡單！搞定！

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Claim 1

- 1. A **liquid crystal display** device comprising: 專利標的是液晶顯示器
 - a liquid crystal panel with a display area and having front and back surfaces and a first plurality of edges;
 - a light unit with a second plurality of edges joined with the liquid crystal panel;
 - a first support frame(190) supporting the light unit and having a portion that extends parallel to at least one edge of the light unit;
 - a second support frame(400) coupled to the portion of the first frame;
 - an outer casing(500), and
 - a fastening part(430, 410a, 410b, 410c) joining together the first and second support frames(190,400) and the outer casing(500) through the portion(410a) of the first support frame(190) that is coupled to the second support frame(400).

螺絲在這裡

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Claims 5 & 8

- 5. A **portable computer** comprising:
 - a liquid crystal display device having a display surface and a first plurality of side edges;
 - a body having an input device;
 - a cover, coupled to an edge of the body, having a second plurality of side edges, and
 - a fastening unit attaching the first plurality of side edges of the liquid crystal display device to the second plurality of side edges of the cover, the liquid crystal display device being mounted to the cover.
- 8. A **portable computer** comprising:
 - a liquid crystal display device having a first side edge;
 - a body having an input device;
 - a cover joined with the body and having a second side edge, and
 - a fastening unit joining together the liquid crystal display device and the cover through the first and second side edges of the liquid crystal display device and the cover, respectively.

專利標的是NB

專利標的是NB

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Claim 9

- 9. A **liquid crystal display device** comprising:
 - a first support frame having a first fastening member at a side edge of the first support frame;
 - a reflector unit adjacent the first support frame;
 - a light source adjacent to the reflector unit;
 - a light guide unit adjacent the reflector unit;
 - a protection unit adjacent the light guide unit;
 - a prism unit adjacent the protection unit;
 - a diffuser unit adjacent the prism unit;
 - a liquid crystal panel adjacent the diffuser unit, and
 - a second support frame having a second fastening member at a side edge of the second support frame, wherein the reflector unit, the protection unit, the prism unit, and the diffuser unit, the liquid crystal panel are between the first and second support frame, and the first and second support frames are attached to each other through the first and second fastening members only through the side edges of the first and second support frames.

專利標的是液晶顯示器

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LG's US5926237

United States Patent [19] (11) **Patent Number:** **5,926,237**
Yun et al. [45] **Date of Patent:** ***Jul. 20, 1999**

COMPUTER HAVING LIQUID CRYSTAL DISPLAY

[75] Inventors: **Hee Young Yun, Kumi-shih, Kyo Hun Moon, Kirschchou-shi, Byeong Yun Lee, Nowon-shih, Yong Bum Kim, Kumi-shih, Young Un Bang, Ansan-shih, all of Rep. of Korea**

[73] Assignee: **LG Electronics Inc., Seoul, Rep. of Korea**

[*] Notice: This patent is subject to a terminal disclaimer.

[21] Appl. No.: **09/145,357**
 [22] Filed: **Sep. 1, 1998**

Related U.S. Application Data

[63] Continuation of application No. 08/888,164, Jul. 3, 1997, Pat. No. 5,835,139

[30] Foreign Application Priority Data
 Apr. 8, 1997 [KR] Rep. of Korea 97-12809
 Apr. 17, 1997 [KR] Rep. of Korea 97-14278

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 09080334 2/1993 Japan
 07199180 8/1995 Japan
 07281184 10/1995 Japan
 2305680 4/1997 United Kingdom
 2305680 4/1997 United Kingdom

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Structure Design for Liquid Crystal Display Module, IBM Technical Disclosure Bulletin, vol. 39, No. 1, Jan. 1996, S. 71-73.
 High Efficiency Back Light for LCD, IBM Technical Disclosure Bulletin, vol. 33, No. 9, Feb. 1991, S. 261, 262.
 JP2-79893 Patents Abstracts of Japan, P-1061, Jan. 3, 1990, vol. 14, No. 274.
 IBM Technical Disclosure Bulletin, vol. 37, No. 12, Dec. 1994 entitled "Cell Support Assembly without Screw".
 "14.2" XGA (Ver. 2) Technical Data, AA142XB11, Advanced Display, Inc.

專利標的是顯示器製作方法

- 1. A **method of forming a liquid crystal display device**
- 6. A **method of assembling a portable computer** comprising a liquid crystal display
- 9. A **method of assembling a portable computer** comprising a liquid crystal display device
- 10. A **method of forming a liquid crystal display device**
- 15. A **method of forming a liquid crystal display device**
- 25. A **method of forming a liquid crystal display device**
- 35. A **method of making a liquid crystal display device**
- 45. A **method of making a portable computer**
- 54. A **method of making a portable computer**

專利標的是NB的製作方法

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LG's US6002457

United States Patent [19] (11) **Patent Number:** **6,002,457**
Yun et al. [45] **Date of Patent:** ***Dec. 14, 1999**

COMPUTER HAVING LIQUID CRYSTAL DISPLAY

[75] Inventors: **Hee Young Yun, Kumi, Kyo Hun Moon, Kirschchou-shi, Byeong Yun Lee, Sewon, Yong Bum Kim, Kumi Young Un Bang, Ansan, all of Rep. of Korea**

[73] Assignee: **LG LCD, Inc., Rep. of Korea**

[*] Notice: This patent is subject to a terminal disclaimer.

[21] Appl. No.: **09/178,832**
 [22] Filed: **Oct. 26, 1998**

Related U.S. Application Data

[63] Continuation of application No. 08/888,164, Jul. 3, 1997, Pat. No. 5,835,139

[30] Foreign Application Priority Data
 Apr. 8, 1997 [KR] Rep. of Korea 97-12809
 Apr. 17, 1997 [KR] Rep. of Korea 97-14278

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0317261 5/1989 European Pat. Off.
 425793A2 6/1991 European Pat. Off.
 0532284 3/1993 European Pat. Off.
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 Structure Design for Liquid Crystal Display Module, IBM Technical Disclosure Bulletin, vol. 39, No. 1, Jan. 1996, S. 71-73.
 High Efficiency Back Light for LCD, IBM Technical Disclosure Bulletin, vol. 33, No. 9, Feb. 1991, S. 261, 262.
 JP2-79893 Patents Abstracts of Japan, P-1061, Jan. 13, 1990, vol. 14, No. 274.

claim標的是液晶顯示器

- 1. A liquid crystal display device
- 5. A liquid crystal display device
- 9. A liquid crystal display device
- 13. A liquid crystal display device
- 18. A liquid crystal display device
- 23. A liquid crystal display device comprising the steps of
 - Product by process claim
- 33. A liquid crystal display device
- 37. A liquid crystal display device

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LG's US6020942

United States Patent [19] **Patent Number: 6,020,942**
Yun et al. [45] **Date of Patent: *Feb. 1, 2000**

(54) COMPUTER HAVING LIQUID CRYSTAL DISPLAY

(75) Inventors: Hee Young Yun, Kumi; Kyo Hun Moon, Kinschun; Byoung Yun Lee, Suwon; Yong Bum Kim, Kumi; Young Un Bang, Ansan, all of Rep. of Korea

(73) Assignee: LG-LCD, Inc., Rep. of Korea

(*) Notice: This patent is subject to a terminal disclaimer.

(21) Appl. No.: 09/178,711

(22) Filed: Oct. 26, 1998

Related U.S. Application Data

(43) Continuation of application No. 08/868,104, Jul. 3, 1997, Pat. No. 5,835,139.

(30) Foreign Application Priority Data
Apr. 8, 1997 [KR] Rep. of Korea 97-12809
Apr. 17, 1997 [KR] Rep. of Korea 97-14278

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0532284	3/1993	European Pat. Off.
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Structure Design for Liquid Crystal Module, IBM Technical Disclosure Bulletin, vol. 39, No. 1, Jan. 1996, S. 71-73.
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claim標的是NB

- 1. A portable computer
- 4. A portable computer
- 10. A portable computer
- 13. A portable computer
- 14. A portable computer
- 23. A portable computer

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LG's US6373537

(12) United States Patent (10) **Patent No.:** US 6,373,537 B2
Yun et al. (45) **Date of Patent:** *Apr. 16, 2002

(54) COMPUTER HAVING LIQUID CRYSTAL DISPLAY BETWEEN FRAMES ATTACHED AT THE EDGES

(75) Inventors: Hee Young Yun, Kyo Hun Moon, both of Kyungsangbook-doe, Byoung Yun Lee, Suwon-shi; Yong Bum Kim, Kyungsangbook-doe; Young Un Bang, Kyunggi-do, all of (KR)

(73) Assignee: LG, Philips LCD Co., Ltd., Seoul (KR)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.
This patent is subject to a terminal disclaimer.

(21) Appl. No.: 09/326,540

(22) Filed: Jun. 7, 1999

(30) Foreign Application Priority Data

Apr. 8, 1997 (KR) 97-12809
Apr. 17, 1997 (KR) 97-14278

FOREIGN PATENT DOCUMENTS

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IBM Technical Disclosure Bulletin, vol. 39, No. 01, Jan. 1996 entitled "Structure Design for Liquid Crystal Display Module".
Advanced Display Inc., "14.2XGA (Ver. 2) Technical Data, AA142XB11".

Primary Examiner—Toan Ton
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Independent Claims

- 1. A liquid crystal display device
- 2. A liquid crystal display device mountable to a housing
- 7. A portable computer
- 12. A portable computer

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LG's US6456343

(12) United States Patent (10) **Patent No.:** US 6,456,343 B2
Kim et al. (45) **Date of Patent:** Sep. 24, 2002

(54) LIQUID CRYSTAL DISPLAY

(75) Inventors: Young-Su Kim, Joong-Jae Lee, both of Kumi-shi (KR)

(73) Assignee: LG, Philips LCD Co., Ltd., Seoul (KR)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 09/826,101

(22) Filed: Apr. 5, 2001

(30) Foreign Application Priority Data

Jul. 29, 2000 (FR) 2000-41531

(51) Int. Cl.: G02F 1/1333

(52) U.S. CL.: 349/58; 361/368; 345/505

(58) Field of Search: 349/58; 361/368;

5,872,606	A *	2/1999	Kim	349/58
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6,184,425	A *	11/2000	Kim	349/58
6,292,239	B1 *	9/2001	Nagamura et al.	349/58

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Primary Examiner—Kenneth Parker
Assistant Examiner—V. Litovchenko

(74) Attorney, Agent, or Firm—McKenna Long & Aldridge

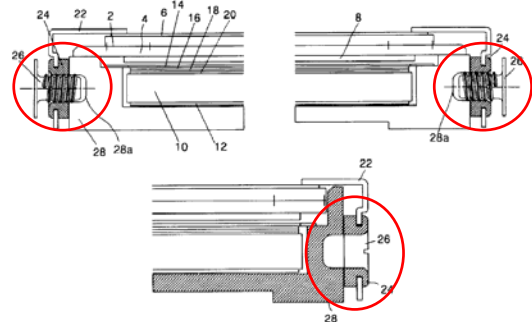
(57) ABSTRACT

A liquid crystal display that resists idling of a nut used for fixing a liquid crystal module in a main supporter. In the liquid crystal display a main supporter holds a backlight unit and a liquid crystal display panel. A top case encloses edges of the liquid crystal display panel and the main supporter. An inserting nut is pressed into a cross-shaped hole in the top

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防鬆之增強構件



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Claim 1 & 12

- 1. A liquid crystal display device, comprising:
 - a main supporter housing a backlight unit and a liquid crystal display panel,
 - a top case enclosing a top edge and a side edge of the liquid crystal display panel, and a side edge of the main supporter, wherein said top case includes a hole;
 - an inserting nut press formed in said hole, and
 - a screw threaded into said inserting nut, wherein said screw fixes said top case to said main supporter such that said liquid crystal display panel is retained in said main supporter.
- 12. A method of assembling a liquid crystal display device, comprising:
 - installing a backlight unit and a liquid crystal display panel in an interior chamber of a main supporter;
 - inserting an inserting nut in a predefined hole in a side edge of a top case;
 - press forming said inserting nut such that the inserting nut is retained in the predefined hole;
 - locating the top case on the main supporter such that the liquid crystal display panel has a top edge and a side edge protected by the top case and such that the inserting nut is aligned with a recess in the main supporter, and
 - fixing the top case and the main supporter together by threading a screw into the inserting nut, wherein the liquid crystal display panel is retained in the main supporter.

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LG's US6512558

(12) United States Patent (10) Patent No.: US 6,512,558 B2
Kim (45) Date of Patent: Jan. 28, 2003

(51) FLAT DISPLAY MODULE-HOUSING ASSEMBLY 6,016,375 A * 1/2000 Kim 349/58
6,855,829 A * 4/2000 Kuhlman et al. 349/58
6,166,788 A * 1/22/000 Ha et al. 349/58
(75) Inventor: Sung Kon Kim, Pusan-shi (KR) 6,229,665 B1 * 5/2001 Moon 349/58
(73) Assignee: LG.Philips LCD Co., Ltd., Seoul (KR) 6,292,239 B1 * 9/2001 Nagamura et al. 349/58
(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days. 6,295,613 B1 * 9/2001 Yamamoto et al. 349/58
6,392,724 B2 * 5/2002 An et al. 349/58
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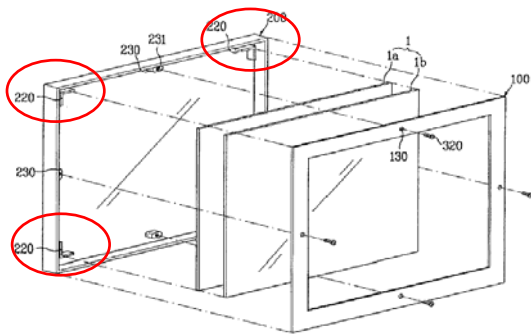
(21) Appl. No.: 10/028,701
(22) Filed: Dec. 28, 2001
(45) Prior Publication Data
US 2002/0186529 A1 Dec. 12, 2002
(57) ABSTRACT

(30) Foreign Application Priority Data
Jun. 11, 2001 (KR) 1-52813
(51) Int. Cl. G02F 1/1335
(52) U.S. Cl. 349/58
(58) Field of Search 349/58

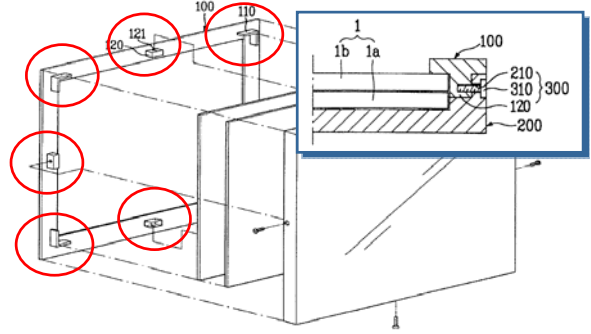
Primary Examiner—James Dudak
(74) Attorney, Agent, or Firm—Morgan, Lewis & Bockius LLP

A display module-housing assembly includes a flat display module for displaying images, a display housing having a front housing and a rear housing, the front housing being fitted to the front of the flat display module, and a rear housing being fitted to the rear of the flat display module; and a coupler for coupling the front housing to the rear housing.

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Claim 1

- 1. A display module-housing assembly comprising:
 - a liquid crystal flat display module for displaying images;
 - a display housing having a front housing and a rear housing, the front housing being fitted to the front of the flat display module, and the rear housing being fitted to the rear of the flat display module, and
 - a coupler for coupling the front housing to the rear housing to fix the flat display module directly between the front housing and the rear housing,
 - wherein the flat display module includes a backlight part for emitting light, and a liquid crystal panel part for receiving the light from the backlight part to display images, and
 - wherein the liquid crystal panel part is directly attached to the front housing, and the backlight part is directly attached to the rear housing.

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Claim 11

- 1. A kit for assembling a display module-housing assembly for a liquid crystal flat display module, the kit comprising:
 - a front housing part configured to be fitted to the front of the flat display module;
 - a rear housing part configured to be fitted to the rear of the flat display module, and
 - a coupling part configured to couple the front housing part to the rear housing part to fix the flat display module directly between the front housing part and the rear housing part,
 - wherein the flat display module includes a backlight part for emitting light, and a liquid crystal panel part for receiving the light from the backlight part to display images, and
 - wherein the front housing part is configured to directly attach to the liquid crystal panel part, and the rear housing part is configured to directly attach to the backlight part.

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Comment

- A portfolio constructed by 7 patents.
- Filed from 3 JUL 1997 to 28 DEC 2001
- 35 independent claims
 - A LCD
 - A method of making a LCD device
 - A portable computer
 - A method of making a portable computer
 - A kit for assembling a display module-housing assembly for a LCD module
- 目的
 - 簡單的創意，獨特的發明，強大的專利組合
 - 擴大訴訟之求償基礎與授權談判之能力
 - 獲取的權利金遠超過專利申請費用

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PCB噴墨印刷設備



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專利組合

- 9 patents
 - 138 claims
 - 27 independent claims (27種結構組成)
 - (只有一種會實施)

序號	公告/公開號	專利名稱	公告/公開日期
Γ 1	M267799	印刷電路板噴墨印刷裝置(2)	2005/06/11
Γ 2	M267068	電路板噴墨印刷裝置	2005/06/11
Γ 3	M264113	雙層板噴墨印刷機	2005/05/11
Γ 4	M263229	影像定位之噴墨印刷機	2005/05/01
Γ 5	M263228	感風固定之噴墨印刷機	2005/05/01
Γ 6	M260989	電路板噴印及硬化裝置	2005/04/01
Γ 7	M260988	電路板噴印及硬化裝置	2005/04/01
Γ 8	M260417	直立式電路板噴墨印刷改良裝置	2005/04/01
Γ 9	M259429	印刷電路板噴墨印刷裝置(1)	2005/03/11

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二板式射出機之卡筭裝置



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申請專利範圍獨立項

- 1. (原始發明)一種二板式射出成形機之鎖模卡筭機構，包括有
 - 一卡筭，.....；以及
 - 一套筒，.....。
- 11. (專利組合1)一種二板式射出成形機之鎖模機構，包括有一卡筭機構，其中該卡筭機構.....
- 21. (專利組合2)一種二板式射出成形機，包括有一基座與鎖模機構，該鎖模機構包括有一卡筭機構，其中該卡筭機構.....



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研發各階段所需要執行的專利工作

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研發前期的專利工作

- 研發之前：擬定研發方向
 - 專利檢索
 - 專利管理圖：瞭解發展趨勢、競爭地區、競爭公司、key person
- 研發前期
 - 專利引證圖
 - Key patents(高影響力專利、高創造性專利)
 - 技術發展脈絡(Skeleton)
 - 專利技術圖：擬定研發與市場策略
 - 技術分佈
 - 技術功效佈局矩陣
 - 研發概念提出專利申請

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研發中期的專利工作

- 研發中期：針對關鍵專利，
 - 進行規避設計
 - 權利要求分析
 - 法律地圖
 - 法律狀態(Legal Status)
 - 繳費維護狀態、轉讓、授權、許可狀態
 - 家族地圖(Family Map)
 - File wrapper
 - 搜集禁反言證據
 - 專利不侵權鑒定
 - 提起無效之訴(Invalid)
 - 專利檢索
 - 建構專利組合：針對規避設計的結果提出專利申請

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研發後期的專利工作

- 研發後期
 - 競爭對手的專利檢索與監控
 - 如有必要，提起無效之訴(Invalid)
 - 持續建構專利組合
 - 針對先前研發概念的改良繼續提出專利申請
 - 針對規避設計結果的改良提出專利申請
- 研發之後，產品製造與銷售階段
 - 競爭對手的專利檢索與監控
 - 如有必要，提起無效之訴(Invalid)
 - 製造地與銷售地的專利檢索與監控
 - 持續鞏固專利組合：針對產品的局部改良繼續提出專利申請
 - 競爭對手的產品監控
 - 如有侵權，排除侵權(警告、訴訟)
 - 如有侵權，專利授權

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產品停止生產之後的專利工作

- 產品停止製造之後
 - 競爭對手的產品監控
 - 如有侵權，排除侵權(警告、訴訟)
 - 專利鑒價
 - 專利交易

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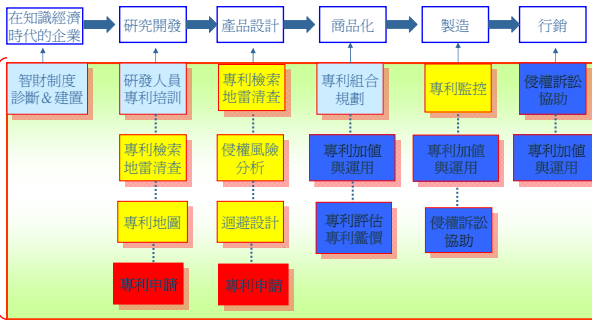
結論與建議

- 知識經濟時代，專利是威力最大的武器，宜建立「專利堡壘」自保。
 - 堡壘 vs 寶塔
- 專利都是SSS
 - 利用專利賺錢：訴訟、授權
 - 專利訴訟是發揮專利本質的獲利方式
 - 利用專利減少損失
 - 嚇阻競爭對手提起專利訴訟
 - 爭取訴訟談判的籌碼
 - 降低侵權訴訟的損失
 - 申請專利與維護專利都要花錢
- 專利分析是手段，專利組合是武器，專利獲利才是目的。
- 專家才是贏家
 - 不是專家就找專家
- 今天不做，明天就會後悔！Nothing impossible!
- Just do it!

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冠亞智財的服務



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