

# Patent Research: How a Patent Document Resists Research

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## **Abstract**



### Patent Research: How a Patent Document Resists Searching

Patents, being both technical and legal documents that are easily available in an analysis-friendly format, can lure unsuspecting researchers to struggle with many unknowns in the data as presented. The liberties that inventors and lawyers take with the language used is a balance between the scientist's technical discussion coupled with a duty of disclosure and the assignee's demands not to give any additional information to a competitor in light of the patent attorney's intent to fully protect a client's rights under the umbrella of international patent law. Patents are further complicated by variances in patent families which can lead to double counting of inventions, classification codes which vary quite dramatically, changes in the law which can influence a patent drafter's lexicography, and even problems introduced by the very forms used to apply for patents. Citation analysis, a staple of academic research, can also be clouded by different influences that are unique to patents, including the sometimes competing intent of the examiner and the applicant. These various interests add up to a document that has hidden traps for the unwary researcher. This presentation discusses many of these issues as an aid to patent analysis.

## The expectations of patents



### What people expect from patents

- •A comprehensive description of a new invention, including enough information to practice the invention once the patent runs out
- •A legal claim covering the metes and bounds of the invention so that others can avoid infringing

## What the reality is

- •A sometimes verbose listing of examples accompanied with some text in the general area of the invention which meets the legal minimums to define a patent
- •An overly-cautious description of the invention just barely within the bounds of the prior art, all written in obscure legalese

### Issues



- Source of the information is dependent upon the patent drafter, which sometimes is a *pro se* applicant, writing her own documents
  - Typically, a patent office will help a pro se person with an application
  - Offices are also more forgiving if non-professionals execute an application
  - But, they still have to abide by the same rules and procedures
- Patent offices have many standards, but local customs prevail
- Applicants sometimes have ulterior motives for writing a patent the way they
  do
- Data processing introduces errors
- The entire system has unintentional errors which can be magnified in patent research
- If the original documents cannot be trusted, how can searchers be expected to find the right data or patent analysis to work correctly?

## **Patent drafting issues**



## **Applications**

- •Titles are the legal minimums
- Abstracts are quite often a rewritten version of the first claim
- •Patent drafters have no intention to write a patent so it is searchable; they write it to be able to protect their client
- •Applicants sometimes will add more information than is necessary with the idea that they can broaden the claims later if something in the prior art is found

#### **Patents**

- Titles are quite often improved over applications, but still can be lacking
- •Claims can differ significantly from the application because they have undergone examination
- •Text is difficult to change as new matter is not allowed and any new material can be considered new matter

## **Patent drafting issues**



## Patent drafting wisdom

- Many drafters compose the claims first and then copy the first (broadest)
   claim into the abstract field
- This saves times, but more importantly...
- This is done to insure that the claims always have an antecedent basis – that is, every claim must be supported in the text of the patent
- Words are often broadened to enlarge the scope of the claims
- Word order is often turned around
  - In English, adjectives precede subjects (red car)
  - In patents, the opposite is often true (a car having the color red)

## **Patent drafting issues**



#### Abstract EP 2106909 A2

The printing machine comprises a central roller (3); at least one printing unit (5) with a cliche roller (7) and means (9, 13) for applying ink to the cliche roller. A control unit (50) in also provided, interfaced with at least one actuator (19) to move the printing unit towards the central roller. The printing unit (5) comprises at least one load sensor (41) and at least one position transducer (43) associated with the cliche roller, interfaced with the control unit. This latter is programmed to perform a calibration of the printing unit with a first step to move the printing unit towards the central roller until reaching a zero position defined on the basis of a signal of said at least one load sensor.

Claims: EP 2106909 A2

1. A printing machine comprising:- a central roller;- at least one printing unit with a cliche roller and means for applying an ink to said cliche roller, said cliche roller cooperating with said central roller;- a control unit interfaced with at least one actuator to move the printing unit towards the central roller; characterized in that: said printing unit comprises at least one load sensor and at least one position transducer associated with said cliche roller, interfaced with said control unit; and in that said control unit is programmed to perform a calibration of the printing unit with a first step to move the printing unit towards the central roller until reaching a zero position defined on the basis of a signal of said at least one load sensor, the subsequent operations to move the printing unit towards the central roller being performed using said at least one position transducer and said zero position.

# Reading the legal content of a patent – the claims





- 1. An animal trap which comprises perforce, An enclosure that has a front end with, of course,
  - An entrance opening at that front end; And also a back end whereat one can find,
  - An exit opening; and in this consortium, A pivoting member that has a front portion
  - Adjacent said front end; and to the back end The pivoting member does also extend;
  - Being pivotally mounted within said enclosure, With a blocking member which does effect closure
  - Of said entrance opening when front portion's lowered; Said pivoting member, too, made to afford,
  - By position and balance when it is at rest, The trap to be set for its animal guest,
  - With its front portion raised up, but only until, An animal's weight on said front portion will

## **Claims**



- •Claims are the legal portion of a patent and contain terminology that describe the metes and bounds of the invention
- •Claims are couched in several hundred years of case law and court interpretations
- •Terms used in one country will often be adopted by other countries, typically (thankfully) with the same meaning
- "Comprising," for example, means having at least the following properties and "Consisting of" means having exactly the following properties; so the first is broadest
- Claims are one sentence long

# **Dialog**°

1. An anaphylotoxin activity modulating compound of the formula: A-B-D-E-G-J-L-M-Q 50 or a pharmaceutically acceptable salt thereof wherein the groups A through O have the values: A is  $R_1$ - $R_2$ - $R_3$ ; B is selected from the group consisting of R<sub>4</sub>-R<sub>5</sub>-R<sub>6</sub>,  $R_{31}$ ,  $R_{32}$ ,  $R_{35}$  and  $R_{37}$ ; D is selected from the group consisting of R7-R8-R9,  $R_{31}$ ,  $R_{32}$ ,  $R_{35}$  and  $R_{37}$ ; E is selected from the group consisting of R<sub>10</sub>-R<sub>11</sub>- $R_{12}$ ,  $R_{31}$ ,  $R_{32}$ ,  $R_{35}$  and  $R_{37}$ ; G is selected from the group consisting of R<sub>13</sub>-R<sub>14</sub>- 60  $R_{15}$ ,  $R_{31}$ ,  $R_{32}$ ,  $R_{35}$  and  $R_{37}$ ; J is selected from the group consisting of R<sub>16</sub>-R<sub>17</sub>-R<sub>18</sub>, R<sub>31</sub>, R<sub>32</sub>, R<sub>35</sub> and R<sub>37</sub>; L is selected from the group consisting of R<sub>19</sub>-R<sub>20</sub>- $R_{21}$ ,  $R_{31}$ ,  $R_{32}$ ,  $R_{35}$  and  $R_{37}$ ; M is a valence bond, or is selected from the group wherein consisting of R<sub>22</sub>-R<sub>23</sub>-R<sub>24</sub>, R<sub>31</sub>, R<sub>32</sub>, R<sub>35</sub>, and R<sub>37</sub>; Q is R25-R26-R27; or

We claim:

B and D, taken together, optionally represent a group selected from the group consisting of R<sub>33</sub>, R<sub>34</sub>, R<sub>38</sub>, R<sub>39</sub>, R<sub>40</sub>, R<sub>41</sub>, R<sub>42</sub>, R<sub>43</sub>, and R<sub>44</sub>;

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- D and E, taken together, optionally represent a group selected from the group consisting of R<sub>33</sub>, R<sub>34</sub>, R<sub>38</sub>, R<sub>39</sub>, R<sub>40</sub>, R<sub>41</sub>, R<sub>42</sub>, R<sub>43</sub>, and R<sub>44</sub>;
- E and G, taken together, optionally represent a group selected from the group consisting of R<sub>33</sub>, R<sub>34</sub>, R<sub>38</sub>, R<sub>39</sub>, R<sub>40</sub>, R<sub>41</sub>, R<sub>42</sub>, R<sub>43</sub>, and R<sub>44</sub>;
- G and J, taken together, optionally represent a group selected from the group consisting of R<sub>33</sub>, R<sub>34</sub>, R<sub>38</sub>, R<sub>39</sub>, R<sub>40</sub>, R<sub>41</sub>, R<sub>42</sub>, R<sub>43</sub>, and R<sub>44</sub>;
- J and L, taken together, optionally represent a group selected from the group consisting of R<sub>33</sub>, R<sub>34</sub>, R<sub>38</sub>, R<sub>39</sub>, R<sub>40</sub>, R<sub>41</sub>, R<sub>42</sub>, R<sub>43</sub>, and R<sub>44</sub>;
- L and M, taken together, optionally represent a group selected from the group consisting of R<sub>33</sub>, R<sub>34</sub>, R<sub>38</sub>, R<sub>39</sub>, R<sub>40</sub>, R<sub>41</sub>, R<sub>42</sub>, R<sub>43</sub>, and R<sub>44</sub>; and one or more of the groups R<sub>5</sub>-R<sub>6</sub>-R<sub>7</sub>, R<sub>8</sub>-R<sub>9</sub>-R<sub>10</sub>, R<sub>11</sub>-R<sub>12</sub>-R<sub>13</sub>, R<sub>14</sub>-R<sub>15</sub>-R<sub>16</sub>, R<sub>17</sub>-R<sub>18</sub>-R<sub>19</sub>, R<sub>20</sub>-R<sub>21</sub>-R<sub>22</sub>, and R<sub>23</sub>-R<sub>24</sub>-R<sub>25</sub>, independently may optionally represent R<sub>36</sub>;
- (a) R<sub>1</sub> is selected from the group consisting of lower alkyl, aryl, arylalkyl, and hydrogen;



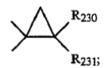
5,387,671

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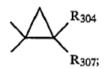
- (b) R<sub>2</sub> is selected from the group consisting of >CR<sub>99</sub>R<sub>100</sub> and oxygen, with the proviso that when R<sub>2</sub> is oxygen, R<sub>1</sub> is aryl, lower alkyl, or arylalkyl;
- (c) R<sub>3</sub> is selected from the group consisting of >C=O and >CH<sub>2</sub>, with the proviso that when R<sub>3</sub> is >CH<sub>2</sub> then R<sub>2</sub> cannot be oxygen;
- (d) R<sub>4</sub> is >NR<sub>101</sub> where R<sub>101</sub> is selected from the group consisting of hydrogen, lower alkyl, arylal- 10 kyl, and alkenyl;
- (e) R<sub>5</sub> is selected from the group consisting of >CR<sub>201</sub>R<sub>202</sub>, >NR<sub>203</sub>, >C=CR<sub>205</sub>R<sub>206</sub>, existing in either the Z- or E-configuration, and substituted cyclopropyl of the formula



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(I) R<sub>17</sub> is selected from the group consisting of > CR<sub>301</sub>R<sub>302</sub>, > NR<sub>303</sub>, > C=CR<sub>305</sub>R<sub>306</sub>, existing in either the Z- or E-configuration, and substituted cyclopropyl of the formula



(m) R<sub>20</sub> is selected from the group consisting of >CR<sub>310</sub>R<sub>311</sub>, >C=CR<sub>315</sub>R<sub>316</sub>, existing in either the Z- or E-configuration, and substituted cyclopropyl of the formula



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aniline amides of aspartyl residues and heterocyclic variants are excluded when R<sub>19</sub>-R<sub>20</sub>-R<sub>21</sub> represents an L-arginyl residue; carboxyhydrazino)alkyl; ureidoalkyl; (heterocyclic)alkyl, wherein when R<sub>19</sub>-R<sub>20</sub>-R<sub>21</sub> represents an L-arginyl residue, then the 5 heterocycle can only be separated by one methylene unit from the alpha-carbon; (thioalkoxy)alkyl, and sulfhydrylalkyl;

- (aw) R<sub>303</sub> is independently selected from the group consisting of lower alkyl, arylalkyl, wherein arylal-10 kyl is limited to benzyl when R<sub>19</sub>-R<sub>20</sub>-R<sub>21</sub> represents an L-arginyl residue, and (cycloalkyl)alkyl, with the proviso that R<sub>303</sub> may not be a vinyl group or have a heteroatom directly attached to the nitrogen or separated from it by one methylene unit; 15
- (ax) R<sub>304</sub> is independently selected from the group consisting of hydrogen; lower alkyl; alkenyl; aryl, arylalkyl, wherein arylalkyl is excluded when R<sub>19</sub>-R<sub>20</sub>-R<sub>21</sub> represents an L-arginyl residue; (cycloalkyl)alkyl; aminoalkyl, wherein aryl and arylal-20 kyl amines are excluded when R<sub>19</sub>-R<sub>20</sub>-R<sub>21</sub> represents an L-arginyl residue; amidoalkyl, wherein benzoyl amides and their heterocyclic variants are excluded when R<sub>19</sub>-R<sub>20</sub>-R<sub>21</sub> represents an L-argi-

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boxyhydrazino)alkyl; ureidoalkyl; (heterocyclic)alkyl, wherein (heterocyclic)alkyl is excluded when R<sub>22</sub>-R<sub>23</sub>-R<sub>24</sub> represents an L-arginyl residue; (thioalkoxy)alkyl; and sulfhydrylalkyl;

- (bb) R<sub>315</sub> and R<sub>316</sub> are independently selected from the group consisting of hydrogen, lower alkyl, arylalkyl, wherein arylalkyl is excluded when R<sub>22</sub>-R<sub>23</sub>-R<sub>24</sub> represents an L-arginyl residue, and (cycloalkyl)alkyl;
- (bc) R<sub>310</sub> is is selected from the group consisting of hydrogen, lower alkyl, arylalkyl, alkenyl, (cycloalkyl)alkyl, aminoalkyl, and guanidinoalkyl;
- (bd) R<sub>325</sub> and R<sub>326</sub> are independently selected from the group consisting of hydrogen, lower alkyl, aryl, arylalkyl, and (cycloalkyl)alkyl;

all of the foregoing with the provisos that

- (i) when more than one sulfhydrylalkyl is present in the compound, the compound exists in the oxidized disulfide form producing a cyclic molecule, or the two sulfhydryl moieties are connected by a C<sub>2</sub> to C<sub>8</sub> alkylene chain and
- (ii) when the compound contains a free amino group and carboxyl group, they can be cyclized to give the corresponding lactam.

# Drafters cause their own problems (US 2004/161257)



- 7. The method of providing user interface displays in an image forming apparatus of claim 6 further comprising, if the user selects the option for the custom interface, then providing the custom interface to the first display device and the second display device.
- 8. The method of providing user interface displays in an image forming apparatus of claim 3, wherein the first standard interface and the second standard interface are substantially identical except for the option for the user to select a different interface.
- 9. The method of providing user interface displays in an image forming apparatus which is really a bogus claim included amongst real claims, and which should be removed before filing; wherein the claim is included to determine if the inventor actually read the claims and the inventor should instruct the attorneys to remove the claim.
- 10. A method of providing user interface displays in an image forming apparatus, the image forming apparatus have a first display device and a second display device, the method comprising

- interface, and if so then to provide the different interface to the first display device and the second display device
- 15. The image forming apparatus of claim 14, wherein the different interface comprises an advanced interface.
- 16. The image forming apparatus of claim 15, wherein the advanced interface includes an option for the user to select a custom interface.
- 17. The image forming apparatus of claim 16, the control program further having instructions for causing the controller to detect if the user selects the option for the custom interface, and if so then to provide the custom interface to the first display device and the second display device.
- 18. The image forming apparatus of claim 13, wherein the first standard interface and the second standard interface are substantially identical except for the option for the user to select a different interface.
  - An image forming apparatus comprising
  - a first display device
  - a second display device

# Drafters cause their own problems (US 2004/161257)





- 7. The method of providing user interface displays in an image forming apparatus of claim 6 further comprising, if the user selects the option for the custom interface, then providing the custom interface to the first display device and the second display device.
- 8. The method of providing user interface displays in an image forming apparatus of claim 3, wherein the first standard interface and the second standard interface are substantially identical except for the option for the user to select a different interface.
- 9. The method of providing user interface displays in an image forming apparatus which is really a bogus claim included amongst real claims, and which should be removed before filing; wherein the claim is included to determine if the inventor actually read the claims and the inventor should instruct the attorneys to remove the claim.
- 10. A method of providing user interface displays in an image forming apparatus, the image forming apparatus have a first display device and a second display device, the method comprising

interface, and if so then to provide the different interface to the first display device and the second display device

- 15. The image forming apparatus of claim 14, wherein the different interface comprises an advanced interface.
- 16. The image forming apparatus of claim 15, wherein the advanced interface includes an option for the user to select a custom interface.
- 17. The image forming apparatus of claim 16, the control program further having instructions for causing the controller to detect if the user selects the option for the custom interface, and if so then to provide the custom interface to the first display device and the second display device.
- 18. The image forming apparatus of claim 13, wherein the first standard interface and the second standard interface are substantially identical except for the option for the user to select a different interface.
  - 19. An image forming apparatus comprising
  - a first display device
  - a second display device

### **Terms of art**



# Method of injection into meat and pickle injector for use therein PATENT ASSIGNEE:

Prima Meat Packers, Ltd., (2511630), 17-4, Higashioi 3-chome, Shinagawa-ku, Tokyo 140-8529, (JP),

#### INVENTOR:

Tanaka, Yoshihiko, c/o Prima Meat Packers, Ltd., 635 Nakamukaihara, Tsuchiura-shi, Ibaraki-ken, 300-0841, (JP)

PATENT: EP 879561 A1 981125 (Basic)

#### CLAIMS

1. An injection method of a liquid substance into a green meat which is characterized in that when the liquid substance is injected into the green meat by using a straight water flow injection nozzle (coherent stream injection nozzle), an injection pressure is controlled while the liquid substance is being injected.

## **Prophetic Examples**



- •Typically, these patent documents claim technology that should work, though it was not necessarily tried
- •Perpetual motions machines typically have to be proved, however; in some cases by submitting a working model
- •Very difficult to discern prophetics, but one thing they share is the use of the present tense; instead of "We combined A with B, " they indicate that, "You combine A with B"
- •Chemical Abstracts began indexing prophetic examples found in patents due to demand from users

# Prophetic example (US 6,025,810 "Hyper Light Speed Antenna")



The following describes, in simple terms, what the present invention actually does. The present invention takes a trans- 30 mission of energy, and instead of sending it through normal time and space, it pokes a small hole into another dimension, thus, sending the energy through a place which allows transmission of energy to exceed the speed of light.

The following is a description of how the communications 35 medium converter functions.

First, you need to create a hot surface that is more than 1000 degrees Fahrenheit. Next, it requires a strong magnetic field. Then, you need an accelerator, followed by an electromagnetic injection point. For communications or data communication, you need 2 devices. Each device is connected to a transmitter and receiver. This allows electromagnetic energy to enter a dimension and to travel at speeds faster than the speed of light.

The magnetic fields are focused onto the heat generating device. The electromagnetic injection point is the plane generated by the two opposing magnetic fields.

It has been observed by the inventor and witnesses that accelerated plant growth can occur using the present invention.

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# Being one's own lexicographer



at least one trigger; said trigger pivotally connected to said body; said trigger **releasably** connected to said catheter...d) activating said launching means such that said catheter is **urgingly** displaced axially along said needle...

(Similar language found in thousands of patents)

Abstract: A transmitter for hydraulic control controlled by a controlling member including a hydraulic chamber having a piston mounted thereto by means of a joint. The hydraulic chamber defines a pressure chamber with variable volume connected to a hydraulic line. A reservoir is connected to the pressure chamber....

US Patent 6298968

# **Searching patents**



• Titles are not the best thing to use to limit in a search



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3,000,978
NOVEL COMPOSITION
Robert H. Fredenburg, Barberton, Ohio, assignor, by mesne assignments, to Pittsburgh Plate Glass Company
No Drawing. Filed Nov. 12, 1959, Ser. No. 852,179
4 Claims. (Cl. 260—652.5)







- (19) United States
- (12) Patent Application Publication (10) Pub. No.: US 2002/0174863 A1 Saric et al.

  - (43) Pub. Date: Nov. 28, 2002

(54) UNKNOWN

(52) U.S. Cl. .......... 126/263.05; 126/263.08; 126/263.09





System and method for storing raw log data

Inventor: DeStefano, Jason Michael, Sunnyvale, CA, US

Jenson, Ralph D., Sunnyvale, CA, US

Assignee: LogLogic, Inc., (02), Sunnyvale, CA, US

Examiner: Corrielus, Jean M

Legal Representative: Wong, Cabello, Lutsch, Rutherford & Brucculeri, LLP

	Publication			Application		Filing	
	Number	Kind	Date		Number	Date	
Main Patent	US 7599939	B2	20091006	US	2004898017	20040723	
Related Publ	US 20050114708	A1	20050526				
Provisional				US	60-525401	20031126	
Provisional				US	60-525465	20031126	

Description of the Invention:

...for Summarizing Log Data;" U.S. Patent Application No. 60/525,465, filed Nov. 26, 2003 and entitled "System and Method for Parsing Log Data;" United States Patent Application entitled "System and Method for the Collection and Transmission of Log Data over a Wide Area Network" filed of even date herewith: U.S...





#### Asynchronous copy protection detector

Inventor: Rumreich, Mark Francis, Indianapolis, IN, US

Hague, John Alan, Indianapolis, IN, US

Assignee: Thomson Licensing, (03), Boulogne-Billancourt, FR

Examiner: Tran, Thai

Assistant Examiner: Dang, Hung Q

Legal Representative: Shedd, Robert D.; Opalach, Joseph J.;

-	Publication Number	Kind	Date	Application Number	Filing Date
Main Patent	US 7599604	B2	20091006	US 2002170955	20020613
Related Publ Provisional	US 20030113101	A1	20030619	US 60-340555	20011214

#### Summary of the Invention:

[0001] This application claims priority to and all benefits accruing from a provisional application filed in the United States Patent and Trademark Office on Dec. 14, 2001, and there assigned Ser. No. 60/340,555





#### SLIP-PROOF COVER FOR VEHICLE TYRES

Inventor: Roca, Sergio Lopez, Terrassa (Barcelona), ES

Chaparro, Isaac Valls, Sabadell (Barcelona), ES

Assignee: Unassigned

Correspondence Address: OSTROLENK FABER GERB & SOFFEN, 1180 AVENUE OF THE

AMERICAS, NEW YORK, NY, 100368403, US

	Publication Number	Kind	Date		oplication Number	Filing Date
Main Patent	US 20090159168	A1	20090625	US	2009392067	20090224
Continuation Priority	ABANDONED			ES	2005180698 20041719 2005381029	20050714 20040714 20050614

#### Description of the Invention:

...COVER FOR VEHICLE TYRES, which claims priority of European Patent
Application No. 05381029.7, filed Jun. 14, 2005, and also of Spanish Patent
Application No. ES 2004/01719, filed Jul. 14, 2004, which are
herein incorporated by reference...





#### METHODS FOR TRANSMITTING MULTIMEDIA FILES AND ADVERTISEMENTS

Inventor: FERNANDEZ, Alvaro, Barcelona, ES

Assignee: Unassigned

Correspondence Address: BAKER BOTTS LLP; C/O INTELLECTUAL PROPERTY DEPARTMENT,

THE WARNER, SUITE 1300, 1299 PENNSYLVANIA AVE, NW, WASHINGTON, DC,

	Pt	ublication Number	Kind	Date	A	oplication Number	Filing Date
Main Patent	US	20090240830	A1	20090924	US	2009431743	20090428
Continuation Priority	US	7565429	A			2008203142 2008783	

#### Description of the Invention:

...a continuation application of copending patent application Ser. No. 12/203,142, filed on Sep. 2, 2008, which claims priority to and the benefit of <a href="Spanish Patent Application No. 200800783">Spanish Patent Application No. 200800783</a>, which is entitled "METHOD USED BY A STREAMING SERVER FOR TRANSMITTING A MULTIMEDIA FILE ON A DATA NETWORK," and was filed on...



Description of the Invention:

...C. [section sign] 120 to U.S. application Ser. No. 10/573,242, filed Mar. 22, 2006, which claims priority to WIPO Application Serial No. PCT/ 2004/031609, filed Sep. 23, 2004, which claims priority to U.S. application Ser. No. 10/669,101, filed on Sep. 23, 2003. The contents of...

#### Description of the Invention:

...0004] WO 2004/114130 ("Method and system for updating versions of content stored in a storage device", published 2004) discloses ...a system and method for generating a compact update package between an old version of content and a new version of content. The system of WO 2004/114130 includes a conversion element generator for generating a conversion element associated with the old version and new version. It also includes a modified version...

# **Application numbers/series**





United States Patent [19]			[11] <b>F</b>	Patent 1	Number: 4,999,999
Tak	Takahashi et al.		[45] <b>I</b>	Date of	Patent: * Mar. 19, 1991
[54]	EXHAUST MOTORC	GAS CONTROL DEVICE FOR	4,554,785	11/1985	
[75]	Inventors:	Naohisa Takahashi; Yoshitsugu Hiraguchi, both of Iwata, Japan	4,621,494	12/1985 11/1986 4/1987	Shirakura . Fujita 60/323 Ohno 60/323
[73]	Assignee:	Yamaha Hatsudoki Kabuashiki Kaisha, Shingai, Japan			ATENT DOCUMENTS
[*]	Notice:	The portion of the term of this patent subsequent to May 23, 2006 has been disclaimed.	32920 231156 262044	9/1926 2/1928	Japan 60/313 United Kingdom . United Kingdom .
[21]	Appl. No.:	243,897	572724 519806		United Kingdom . United Kingdom .
[22]	Filed:	Sep. 13, 1988	542429 561932		United Kingdom . United Kingdom .

# **Application numbers/series**





United States Patent [19]			Patent 1	Number: 4,999,999
hashi et	al.	[45] <b>I</b>	Date of	Patent: * Mar. 19, 1991
		4,554,785	11/1985	Oike .
Inventors:	Naohisa Takahashi; Yoshitsugu Hiraguchi, both of Iwata, Japan	4,621,494	11/1986	Shirakura . Fujita 60/323 Ohno 60/323
Assignee:	Yamaha Hatsudoki Kabuashiki Kaisha, Shingai, Japan			ATENT DOCUMENTS
Notice:	The portion of the term of this patent subsequent to May 23, 2006 has been disclaimed.	32920 231156 262044	2/1985 5 9/1926 2/1928	Japan 60/313
Appl. No.: Filed:	243,897 Sep. 13, 1988	519806 542429	6 4/1940 9 1/1942	United Kingdom . United Kingdom .
	hashi et  EXHAUST MOTORCY Inventors: Assignee: Notice:	EXHAUST GAS CONTROL DEVICE FOR MOTORCYCLES Inventors: Naohisa Takahashi; Yoshitsugu Hiraguchi, both of Iwata, Japan Assignee: Yamaha Hatsudoki Kabuashiki Kaisha, Shingai, Japan Notice: The portion of the term of this patent subsequent to May 23, 2006 has been disclaimed.  Appl. No.: 243,897	hashi et al. [45] I  EXHAUST GAS CONTROL DEVICE FOR MOTORCYCLES Inventors: Naohisa Takahashi; Yoshitsugu Hiraguchi, both of Iwata, Japan  Assignee: Yamaha Hatsudoki Kabuashiki Kaisha, Shingai, Japan  Notice: The portion of the term of this patent subsequent to May 23, 2006 has been disclaimed.  Appl. No.: 243,897  Filed: San 13, 1988	EXHAUST GAS CONTROL DEVICE FOR   4,545,200 10/1985   4,554,785 11/1985   4,558,566 12/1985   4,558,566 12/1985   4,621,494 11/1986   Hiraguchi, both of Iwata, Japan   4,656,830 4/1987   Assignee: Yamaha Hatsudoki Kabuashiki   FOREIGN P   Kaisha, Shingai, Japan   51-54118 11/1976   32920 2/1985   32920 2

### Issues with authors



### 601.05 Bibliographic Information - Application Data Sheet (ADS) [R-5]

37 CFR 1.76 Application Data Sheet

- (a) Application data sheet. An application data sheet is a sheet or sheets, that may be voluntarily submitted in either provisional or nonprovisional applications, which contains bibliographic data, arranged in a format specified by the Office. An application data sheet must be titled "Application Data Sheet" and must contain all of the section headings listed in paragraph (b) of this section, with any appropriate data for each section heading. If an application data sheet is provided, the application data sheet is part of the provisional or nonprovisional application for which it has been submitted.
- (b) Bibliographic data. Bibliographic data as used in paragraph (a) of this section includes:
- (1) Applicant information. This information includes the name, residence, mailing address, and citizenship of each applicant (§ 1.41(b)). The name of each applicant must include the family name, and at least one given name without abbreviation together with any other given name or initial. If the applicant is not an inventor, this information also includes the applicant's authority (§§ 1.42, 1.43, and 1.47) to apply for the patent on behalf of the inventor.

## Inventor address can help

11836919 2008-0177000 2008-0036149





```
C/Composition Having Improved Adherence With an Addition-Curable
 Material and Composite Article Incorporating the Composition; additive is
 selected from the group of a fluorine-substituted organopolysiloxane, an
 amino-functional organopolysiloxane, an unsaturated carboxylic acid or
 carboxylic acid salt; hydrosilylation reactive group present at a surface
 of the substrate for reaction with the addition-curable material
Document Type: Utility; Patent Application-First Publication
Inventors: Ahn Dongchan (US); Fowler Harold Christian (US);
   Nichols Kevin Louis (US); Shepard Nick Evan (US); Warakomski John
   Matthew (US)
Inventor Name & Address: Ahn, Dongchan, Midland, MI, US, (US);
    Fowler, Harold Christian, Midland, MI, US, (US); Nichols, Kevin
   Louis, Freeland, MI, US, (US); Shepard, Nick Evan, Midland, MI,
   US, (US); Warakomski, John Matthew, Midland, MI, US, (US)
Assignee: Unassigned Or Assigned To Individual
Assignee Code: 68000
Probable Assignee (A1): Dow Chemical Co The; Dow Corning Corp
Assignee Name & Address: Unassigned
Attorney, Agent or Firm: HOWARD & HOWARD ATTORNEYS, P.C., THE PINEHURST
   OFFICE CENTER, SUITE #101, 39400 WOODWARD AVENUE, BLOOMFIELD HILLS, MI,
   48304-5151, US
```

## Attorney name and address can help





```
E/CONNECTIVITY PLATFORM

Document Type: Utility; Patent Application-First Publication

Inventors:Anipko Dmitry A (US); Bansal Deepak (US); Schrader

Aaron J (US); Schultz Benjamin M (US); Sundaram Rajesh (US); Thaler

David G (US)

Inventor Name & Address: Anipko, Dmitry A., Bellevue, WA, US, (US); Bansal,

Deepak, Redmond, WA, US, (US); Schrader, Aaron J., Redmond, WA, US,

(US); Schultz, Benjamin M., Kirkland, WA, US, (US); Sundaram, Rajesh,

Redmond, WA, US, (US); Thaler, David G., Redmond, WA, US, (US)

Assignee: Unassigned Or Assigned To Individual

Assignee Code: 68000

Probable Assignee (A1): MICROSOFT CORP

Assignee Name & Address: Unassigned

Attorney, Agent or Firm: MICROSOFT CORPORATION, ONE MICROSOFT WAY, REDMOND,

WA, 98052-6399, US
```

# **Specific data problems**



- •Many fields are not checked for accuracy by the patent offices
- •Some of this data can come in handy (if accurate) in searching for background on inventors

# Inventor address can say a lot







# **Issues with authors and transliterations**



```
Patent Assignee: IBM
Author (Inventor): NASANIERU KARUBUAATO; JIYON JIEEMUZU EEKINZU JIYUNIA;
AARU UORUTAA EMERITSUKU; EDOWAADO UOOKAA FUITSUCHI; REIMONDO KIISU
HAANII; DANIERU JIYOZEFU HOOGU; GUREGORII SUKOTSUTO HAARUBAUSU; GIYARII
UEIN JIEIKOBUSON; JIYON RUISU KEERAA; ERITSUKU DOUEEN RINDOBAAGU;
HENRII JIYOOZEFU MEI; MAAKU ANBUROOZU MATSUKERUBUII; JIEFURII ARAN
NIYUUTON; TEIMOSHII POORU PIKETSUTO; ANDORIYUU EDOWAADO SANDOSUTORO;
JIYOOJI BARII SUKAABARA; MAACHIN JIYON TOMUSON; RUUSU AN
ATSUPUCHIYAACHI; SANDORA DOROSHII UESUTORINGU
Priority (No, Kind, Date): US 1990569119 A 19900817
Applic (No, Kind, Date): JP 1991193702 A 19910709
ECLA: G06F-011/273R; S06F-011:22A; S06F-011:32
IPC + Level Value Position Status Version Action Source Office
v. 5 main: G06F-013/00
```

# **Issues with authors and transliterations**



```
Patent (No, Kind, Date): US 5349674 A 19940920
Automated enrollment of a computer system into a service network of computer systems (English)
Patent Assignee: IBM (US)
Author (Inventor): CALVERT NATHANIAL (US); KOEHLER JOHN L (US);
LINDBERG ERIK D (US); MCKELVEY MARK A (US); MERVOSH STEVEN P (US)
NEWTON JEFFREY A (US); SCARBOROUGH GEORGE B (US); UPCHURCH RUTH A (US); WESTLING SANDRA D (US)
Priority (No, Kind, Date): US 1990569110 A 19900817
Applic (No, Kind, Date): US 1990569110 A 19900817
National Class: 395800; X36424294; X364265; X364284; X3642843;
X3642844:
```

# **Indexing differences**



- •Different indexing systems are used by various offices
- •Not all systems are applied equally

# **Indexing differences (US 7,132,293)**



#### Related U.S. Application Data

(60) Division of application No. 09/917,912, filed on Jul. 31, 2001, now Pat. No. 6,989,228, which is a continuation of application No. 08/470,443, filed on Jun. 6, 1995, now abandoned, which is a division of application No. 07/987,171, filed on Dec. 8, 1992, now Pat. No. 5,868,854, which is a continuation-inpart of application No. 07/638,378, filed on Jan. 7, 1991, now Pat. No. 5,200,017, which is a division of application No. 07/477,474, filed on Feb. 9, 1990, now Pat. No. 5,007,981.

(30)	Foreign A	Application	Priority	Data
\ /				

Feb. 27, 198	89 (JP)	***************************************	1-42976
Feb. 4, 1992	2 (JP)		4-17997

1) Int. Cl. G01N 35/00 (2006.01)

(52) **U.S. Cl.** ...... 436/43; 422/99; 422/100; 422/101; 422/64; 422/65; 436/180

Primary Examiner—Jill Warden
Assistant Examiner—Jyoti Nagpaul
(74) Attorney, Agent, or Firm—Antonelli, Terry, Stout and
Kraus, LLP.

#### (57) ABSTRACT

Disclosed is apparatus for treating samples, and a method of using the apparatus. The apparatus includes processing apparatus (a) for treating the samples (e.g., plasma etching apparatus), (b) for removing residual corrosive compounds formed by the sample treatment, (c) for wet-processing of the samples and (d) for dry-processing the samples. A plurality of wet-processing treatments of a sample can be performed. The wet-processing apparatus can include a plurality of wet-processing stations. The samples can either be passed in series through the plurality of wet-processing stations, or can be passed in parallel through the wet-processing stations.

#### 10 Claims, 13 Drawing Sheets

## **Indexing differences (US 7,132,293)**





#### Related U.S. Application Data

(60) Division of application No. 09/917,912, filed on Jul. 31, 2001, now Pat. No. 6,989,228, which is a continuation of application No. 08/470,443, filed on Jun. 6, 1995, now abandoned, which is a division of application No. 07/987,171, filed on Dec. 8, 1992, now Pat. No. 5,868,854, which is a continuation-inpart of application No. 07/638,378, filed on Jan. 7, 1991, now Pat. No. 5,200,017, which is a division of application No. 07/477,474, filed on Feb. 9, 1990, now Pat. No. 5,007,981.

(30)	Foreign A	Application	Priority	Data
\ /				

Feb. 27, 1989	(JP)	***************************************	1-42976
Feb. 4, 1992	(JP)		4-17997

(51) Int. Cl. G01N 35/00 (2006.01)

 Primary Examiner—Jill Warden
Assistant Examiner—Jyoti Nagpaul
(74) Attorney, Agent, or Firm—Antonelli, Terry, Stout and
Kraus, LLP.

#### (57) ABSTRACT

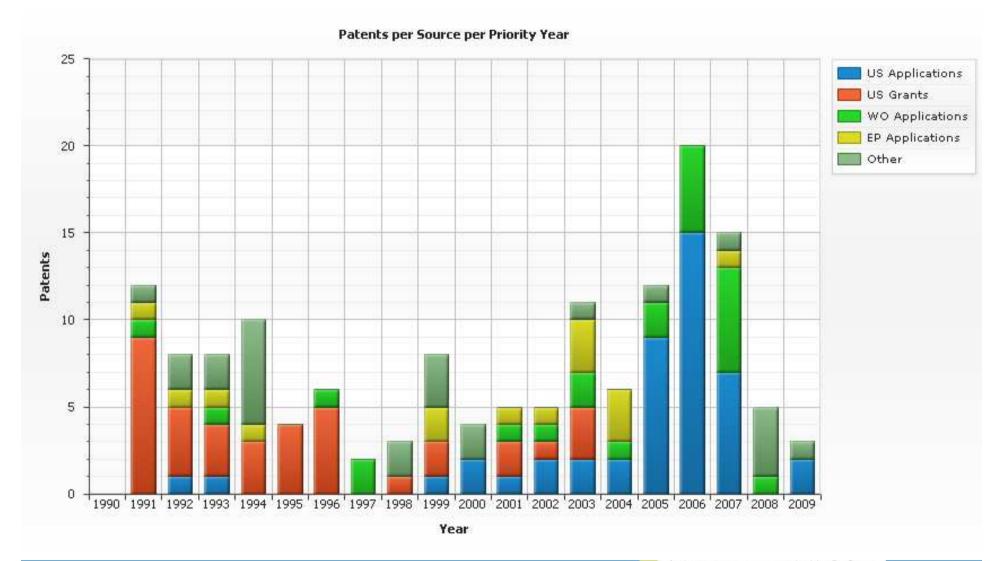
Disclosed is apparatus for treating samples, and a method of using the apparatus. The apparatus includes processing apparatus (a) for treating the samples (e.g., plasma etching apparatus), (b) for removing residual corrosive compounds formed by the sample treatment, (c) for wet-processing of the samples and (d) for dry-processing the samples. A plurality of wet-processing treatments of a sample can be performed. The wet-processing apparatus can include a plurality of wet-processing stations. The samples can either be passed in series through the plurality of wet-processing stations, or can be passed in parallel through the wet-processing stations.

#### 10 Claims, 13 Drawing Sheets

# H1N1 patents (using class codes) by priority date







## Other fields



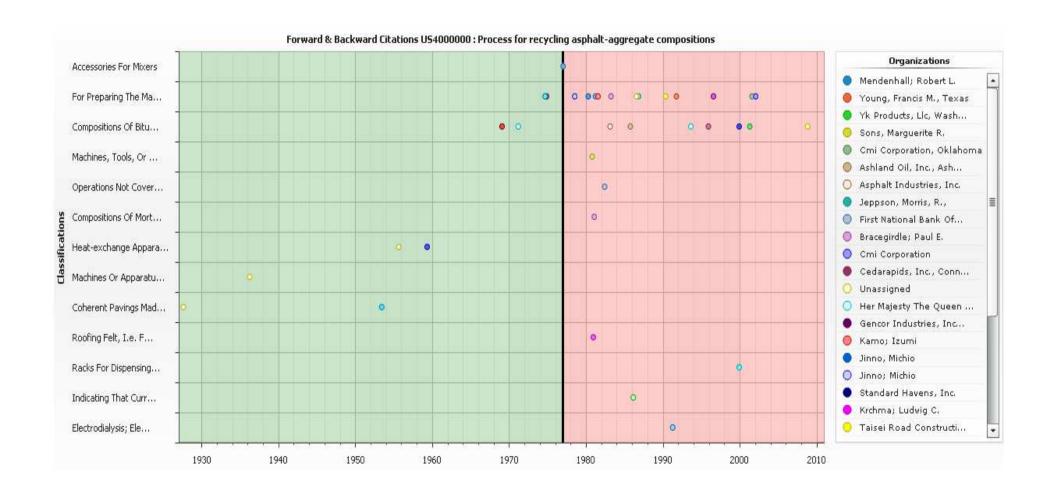
### **Patent citations**

- •Applicants will cite prior patents and literature to show the differences between their inventions and the prior art
- •It is difficult to use these citations to invalidate the patent, so applicants are encouraged to use as many as possible
- •Other reasons why patents are cited is because they are close or...
- •An inventor who leaves a company and wants to avoid prosecution for stealing ideas may wish to cite his old work to protect himself
- •Citations are a language-independent and indexing-independent method of indexing done by the public at large

## **Patent citations**







# In order to be patented, drawings are often required...





United States Patent	[19] [11]	Patent Number:	6,045,281
Bunn et al.	[45]	Date of Patent:	Apr. 4, 2000

[54]	WRITING	IMPLEMENT ATTACHMENT	2,574,615 2,682,123	11/1951 6/1954	Brewer . Fredrickson .
[75]	Inventors:	Renae B. Bunn, 3121 Arizona, NE., Albuquerque, N.Mex. 87110; Randy B. Krall; Karen Krall, both of Albuquerque, N. Mex.; Nathan Z. Korn, Corrales, N.Mex.	3,846,927 3,961,852 4,217,712 4,243,338 4,508,464 4,658,523		Geffen . Parry
[73]	Assignee:	Renae B. Bunn, Albuquerque, N.Mex.	4,678,206 4,728,212	7/1987 3/1988	Leahan . Spector .
[21]	Appl. No.:	08/885,339	4,787,161 5,086,577 5,207,172	11/1988 2/1992 5/1993	Feng
[22]	Filed:	Jun. 30, 1997	5,308,179	5/1994	Whitright 401/131
[51]		B43K 29/00	FC	REIGN	PATENT DOCUMENTS
[52] [58]	Field of So	earch	1345646 3407335 3639892	11/1963 8/1985 6/1988	France
[56]		References Cited		OTHE	R PUBLICATIONS

#### U.S. PATENT DOCUMENTS

D. 11,795	6/1880	Fairchild D19/44
D. 164,548	9/1951	Blish .
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D. 310,101	8/1990	Gauthier 401/52 X
D. 338,037	8/1993	Miller et al 401/131 X
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1,266,639	5/1918	Swan 15/443
1,297,017	3/1919	Scott 401/52 X
1,305,245	6/1919	Barthelemy .
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1,832,318	11/1931	Myers .
2,248,145	7/1941	Wilder 401/52 X
2,502,328	3/1950	Kuhn .

"Quick Clip" attachment shown in Bic Catalog (1995), p. 39.

Primary Examiner—David J. Walczak
Attorney, Agent, or Firm—Peacock, Myers & Adams

#### [57] ABSTRACT

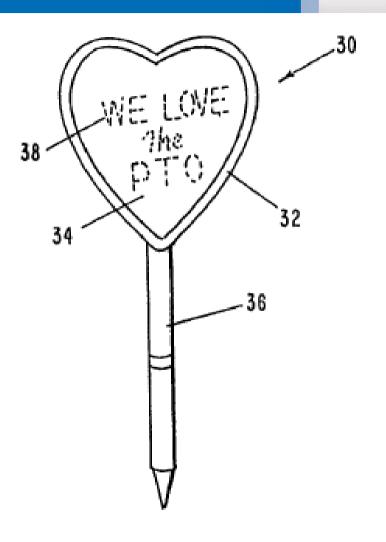
An anti-theft attachment for a writing implement, such as a pencil or pen. The preferred anti-theft attachment comprises an adhesively attached, premanufactured front and back surface disposed on the tip or side of the writing implement. Alternative embodiments comprise flexible and rigid loops. Indicia may be provided to all embodiments.

#### 10 Claims, 2 Drawing Sheets

# **Drawings maybe...pandering, well...?**







### Issues not covered



- Optical Character Recognition rewriting and misinterpretation of text
- •Photocopy problems (some authorities use circles for INID numbers which after the second generation copy, look like black dots instead of circles with numbers inside
- Patent family variations
- •Applicants have determined that if they do not fill in the assignment information until the application publishes, outsiders would have a hard time finding the company that owns the application. Thus, by waiting until the application publishes, under the names of the inventors, anyone doing current awareness will not be able to find this application until the patent issues...or the searcher looks for all documents by naming all the inventors working for that company!
- •And then, there's Markush...

## **Summary**



- Searchers have to be aware that many errors/omissions/strange data work their way into patent documents, sometimes unintentionally
- The patent drafter uses techniques to save time (like copying claims into the abstract) which can also guarantee that the claims will have antecedent bases for all terms
- Sometimes these goals add unusual artifacts in a patent document
- Patent offices do a generally superior job in processing patent documents, but they are strapped with millions of documents with any manner of issues
- Searchers have to be advised of these differences and make the best accommodation to the data, no matter what the reason



# Thank you for your time

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