Patent Practice: Top Ten List Monetizing Inventions

专利实务：用发明实现财富

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Monetizing Inventions in the United States:
在美国用发明实现财富

Ten Patent Practice Myths… and Realities

专利实务的神话与现实

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- Monetizing patent rights in the United States requires that United States patents will successfully undergo scrutiny for weaknesses in three areas.
- 在美国，意图从专利中获取经济利益，要求该专利能成功经受三个方面的考验。
- All three elements are necessary for an effective patent property:
- 一项行之有效的专利权需要具备以下三个要素：

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Three Critical Categories
三个方面的评判

- Breadth of Claims
- 权利要求的宽度
- Validity of the Patent
- 专利有效性
- Enforceable Rights and Ownership
- 可执行权利和所有权

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[Challenges with Broad Claims]
过宽权利要求所面临的挑战

No. (1) "All Elements" Rule
一、"全要件"规则
No. (2) Single Actor-Infringer
二、单一侵权行为人
No. (3) "Means" Claiming
三、"装置加功能" 的权利要求

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[Patent Validity]
专利有效性

No. (4) *New Railhead* Priority Myth
四、"*New Railhead*"案中的优先权问题
No. (5) Claims with Obvious Embodiments
五、具有明显实施方式的权利要求
No. (6) Correct Inventorship Nomination
六、正确的发明人提名
No. (7) Ownership Rights from Co-Workers
七、获得合作者的所有权
No. (8) Best Mode Contemplated
八、发明的最佳实施方式

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[Enforceable Rights]
可执行权利

No. (9) Closest Prior Art when Filing
九、递交申请时的最接近现有技术
No. (10) Updating Prior Art Knowledge
十、更新现有技术

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TIP Systems: "Under the 'all elements' rule, to find infringement, the accused device must contain '***each limitation of the claim***, either literally or by an equivalent.'"

TIP Systems："根据'全要件'规则，被控装置必须字面或者等同地含有权利要求中的每个特征，才构成侵权"

Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 29 (1997), and *Pennwalt Corp. v. Durand-Wayland, Inc.*, 833 F.2d 931, 935 (Fed.Cir.1987) (en banc)(Bissell, J.) are both cited with approval in *TIP Systems, LLC v. Phillips & Brooks/Gladwin, Inc.*, 529 F.3d 1364, 1379 (Fed. Cir. 2008)(Prost, J.)

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Muniauction: "The law ... is axiomatic that a method claim is directly infringed only if each step of the claimed method is performed."

Muniauction:对于方法权利要求，只有当方法的每一个步骤都被实施，才构成直接侵权。

Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318, 1328 (Fed. Cir. 2008)(Gajarsa, J.)(citing *BMC Resources, Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1378-79 (Fed.Cir.2007)(Rader, J.))

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Pennwalt Fruit Sorter Patent illustrates the "all elements" rule:

Pennwalt 水果分拣专利中阐述了"全要件"规则：

- If a claim has many elements, there is infringement of that claim only if *all* elements of the claim are used by the accused infringer.
- 如果一项权利要求含有多个要件，只有当被控侵权方使用了权利要求中的所有要件时，才构成对该项权利要求的侵权。

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- Pennwalt claim includes a fruit sorting system with many elements including a “position indicating means”.
- Pennwalt权利要求包含一个水果分拣系统，该水果分拣系统含有多个要件，其中之一为位置指示装置。
- But, Pennwalt invention works fine *without* a “position indicating means”.
- 但是，即使没有该位置指示装置，Pennwalt发明可照常工作。
- Therefore, accused infringer was completely free to copy the Pennwalt invention by simply *eliminating* the use of a “position indicating means”.
- 因此，仅仅除去“位置指示装置”，被控侵权方就可以免费使用Pennwalt发明。

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The Lessons of *Pennwalt*:
Pennwalt获得的教训：

- Review “claim 1” to see whether all elements are *necessary* to copy the invention.
- 检查权利要求1，确认是否所有要件都是必要的。
- If one element is *not* necessary, it should be *eliminated* from claim 1.
- 如果有哪个要件是非必要的，将它从权利要求1中删除。
- (But, “claim 2” may be a dependent claim that includes this unnecessary limitation to provide preferred embodiment protection.)
- （但是，权利要求 2 可作为从属权利要求含有该非必要的限定条件，从而对实施方式提供更好的保护）

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No. (2) [Breadth] Single Actor-Infringer
二、[宽度]单一侵权行为人

- *Muniauction* teaches that a multistep claim must be performed by a ***single party*** for there to be infringement.
- *Muniauction*指出，一项多步式的权利要求必须由单一的一方作为，才能构成侵权。

Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318 (Fed. Cir. 2008)(Gajarsa, J.).

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- Under the "all elements" rule, it "is axiomatic that a method claim is directly infringed only if each step of the claimed method is performed."
- 根据"全要件"规则，只有当方法权利要求中的每一个步骤都被实施时，才构成直接侵权。

Muniauction, Inc. v. Thomson Corp., 532 F.3d 1318, 1328 (Fed. Cir. 2008)(Gajarsa, J.)(citing *BMC Resources, Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1378-79 (Fed.Cir.2007)(Rader, J.))

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- Muniauction claim has two different actors, a person using the system as a bidder *and* an auction company that operates the system.
- Muniauction的权利要求含有两方不同的参与者：一方作为投标人使用该系统；另一方为拍卖公司运行该系统。
- "All elements" rule requires that *one* party perform all acts of the claim, which did not occur in the Muniauction claim:
- "全要件"规则要求一方实施权利要求中的所有行为，Muniauction的权利要求没有满足这一条件。

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Muniauction Claim:

Muniauction权利要求：

"[A]n electronic auction system ... comprising:

一项电子拍卖系统，……，包括：

[a] inputting data **[by the bidder];**

（投标人）输入数据

[b] automatically computing [by the auction service];

（拍卖系统）自动计算

[c] submitting said bid [by the auction service]; and

（拍卖系统）提交所述出价

[d] communicating at least one [by the auction service]."

（拍卖系统）至少传达一条信息

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- The Muniauction claim was fatally defective for any enforceable right because *no single actor performs all the elements of the claim.*
- Muniauction权利要求在执行方面，具有致命的缺陷，因为权利要求中的所有要件并非由单一行为人完成。
- Muniauction claim step [a] should have been drafted:
- Muniauction权利要求的正确撰写：

  "[a] *receiving* inputted data [from the bidder]"

  （从投标人）接收输入数据

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- In revised claim (single infringer claim) every action is done *by the auction service:*
- 修改后的权利要求中，所有行为都由拍卖系统完成
- The "receiving" is done by the auction service that performs all steps of the revised claim.
- 拍卖系统完成数据接收，并履行（修改后）权利要求中的全部步骤。

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No. (3) [Breadth] "Means" Claiming
三、［宽度］"装置加功能" 权利要求

- "Means" claim is the most common claim form for many types of inventions in mechanical, electronics and software technology.
- 在机械、电子和软件技术等领域中，"装置加功能" 权利要求的撰写是很常见的。
- "Means" claim defines a ***function*** without specifying the ***specific structure.***
- "装置加功能"权利要求，定义了一种功能，却没有指出具体结构。

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Net MoneyIN: Means claim invalidated a claim for indefiniteness under 35 USC § 112, ¶ 2, because the patentee chose to define an element as a "means" but without specifying an algorithm by which a general purpose bank computer "generat[es] an authorization indicia."

Net MoneyIN: 根据35 USC §112, ¶ 2，"装置加功能"权利要求因其不确定性而无效，因为专利权人选择了用"装置"定义一个要件，却没有说明能够使普通银行电脑生成授权标记的算法。

Net MoneyIN, Inc. v. VeriSign, Inc., 545 F.3d 1359, 1367 (Fed. Cir. 2008)(Linn, J.):

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Statute: "An element in a claim ...may be [defined] as a means ... for performing a specified function without [naming its] structure [or] material..., and such claim shall be construed to cover the corresponding structure [or] material... described in the specification and equivalents thereof." 35 USC § 112, ¶ 6.

35 USC § 112, ¶ 6.规定：
权利要求中的一个要件，可以被定义为为了实现特定功能、却没有明确结构（或）材料的装置，此权利要求应被理解为包含说明书中所描述的相应结构（或）材料及其等同物。

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- Thus, the "means"-defined element is stated "as a means ... for performing a specified function" which is given infringement scope "to cover the ...structure [or] material... described in the specification" (and equivalents of the structure in the specification).
- 因此，采用"装置加功能"定义的要件，被称为"为了实现特定功能的装置（方式）"，这使得侵权范围需要包含说明书中描述的结构（或）材料及其等同物。

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To use a "means" definition, there *must* be a statement in the specification *identifying the structure in the specification* corresponding to the "means". Example:

采取"装置加功能"定义，说明书中必须要有相应的确定该"装置（方式）"结构的陈述。例如：

Claim 1 (non-means): "A phone system including a signal ...."

权利要求 1 （非means）：一个电话系统，包括一个信号.....

Claim 2 (means): "A phone system including *signal means...*"

权利要求 2 （means）：一个电话系统，包括信号方式.....

Assume that the specification identifies as a signal a flashing light, but does not identify a vibrating pulse or a bell.

假设说明书中将信号确定为闪烁光，而没有定义为震动或响铃。

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Here, claim 1 would be infringed by *all* "signals" (flashing light, vibrating pulse and bell).

对于权利要求 1，所有的信号（闪烁光、振动和响铃）都可能构成对它的侵权。

But, claim 2 would be infringed *only* by "a flashing light" because of the "means" limitation.

对权利要求 2，由于"方式"的限制，可能仅仅闪烁光会构成对它的侵权。

Lesson: "Means" claiming should always be avoided whenever possible.

教训：尽可能的避免使用"装置加功能"权利要求。

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- What happens if there is *no* structure identified in the specification corresponding to the "means"?
- 如果在说明书中没有指明该"装置"的相应结构，那会如何？
- Here, the claim is *invalid* because it is fatally indefinite.
- 这样的话，该权利要求会因不确定性而无效。

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No. (4) [Validity]
New Railhead Priority Application Myth
四、"New Railhead "案中的优先权问题

Chinese original application ***must*** comply with United States disclosure standards in order to be optimum priority document.

首先在中国提出的专利申请，必须符合美国的公开标准，以备成为以后美国申请的适宜优先权文件。

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- If the United States application has somewhat *different claims* that do not correspond *directly* to the disclosure of the Chinese priority document, then priority under the Paris Convention may be denied.
- 如果美国的专利申请中存在一些不同的权利要求不直接对应中国优先权文件的公开内容，依据巴黎公约要求的优先权可能会被拒绝。
- Without priority under the Paris Convention, the United States application stands naked as of its *actual United States* filing date.
- 没有了巴黎公约下的优先权，一切以在美国的实际申请日起算。

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- "[A]n applicant must 'convey with reasonable clarity to those skilled in the art that, as of the [priority application] filing date sought, he or she was in possession of the invention' ... namely that he ... "had invented each feature that is included as a claim limitation[.]'"
- 自申请日（优先权日）起，一项专利申请必须向同领域技术人员提供合理的清楚信息，即，已经发明出构成权利限制的全部特征。

Cordis Corp. v. Boston Scientific Corp., 561 F.3d 1319, 1332 (Fed. Cir. 2009)(Dyk, J.)(quoting *New Railhead Mfg., L.L.C. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1295 (Fed.Cir.2002))

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- What should be done if Chinese application discloses parameter “X” which is defined as being any of elements A, B or C, and after filing it is discovered that element D should have been included?
- 下面情况应该如何处理？
  - 如果一项中国申请公开了参数“X”，该参数“X”被定义为要件A、B或C中的任意一个，递交申请后，又发现要件D也应被包括其中。

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- Best option: Immediately file U.S. application with claim 1 defining elements A,B,C or D; ***and*** claim 2 defining elements A,B or C.
- If there is intervening prior art defeating claim 1, at least claim 2 is entitled to priority.

- 最佳选择：立即提交美国申请，其权利要求1涉及特征A,B,C 或D，其权利要求2涉及特征A,B或C
- 如果期间现有技术破坏权利要求 1的专利性，至少权利要求2享有优先权。

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No. (5) [Validity]

Avoiding Claims that Include An Obvious Embodiment
第5 有效性
避免明显含有实施例的权利要求

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- It is relatively easy to define a claim that excludes the prior art, i.e., the claim is to *novel* features.
- It is more sophisticated to define a claim that excludes new but *obvious* variations of the prior art.
- 权利要求不含有现有技术，即权利要求的技术特征应当具有新颖性，这相对比较容易
- 权利要求中不含有虽是新的但是现有技术的显而易见等同替换特征，这比较复杂。

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Hypothetical example:

- Prior Art: Alloy with 0.2 % Metal Z.
- Proposed Claim: at *least* 0.3 % Z.
- Commercial: 0.8 % Z
- Great results: *at least* 0.7 % Z.

假设性例子:

- 现有技术: 含有金属Z 0.2 % 的合金.
- 权利要求: 至少含有 0.3 % Z.
- 商业实施: 含有 0.8 % Z
- 最佳效果: 至少含有 0.7 % Z.

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- Here, the claim includes 0.3 % Metal Z, which is *obvious* versus the prior art so that there is no valid claim.
- Claim can be presented with *at least* 0.7 % Metal Z because this is *unobvious* versus the prior art.
- 这里，含有0.3%金属Z的权利要求相对于现有技术显而易见，因此，该权利要求不具有有效性
- 权利要求可以写成“至少含有0.7%金属Z”因为“至少含有0.7%金属Z”相对于现有技术具有非显而易见性。

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The best approach – present *two* claims:

- The first claim is to the broadest scope of patentable subject matter ("at least 0.7 % Z)
- The second claim is to the commercial embodiment (0.8 % Z).

最佳方法 –撰写两个权利要求:

- 第一个权利要求在保持专利性的同时，使权利要求的范围最宽 ("至少含有0.7 % Z)
- 第二个权利要求的范围限制在能够商业化实施的实施例范围 (0.8 % Z).

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No. (6) [Validity]
Correct Inventorship Nomination

第6 有效性
正确的发明人署名

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- Inventorship error is basis for invalidity.
- But, incorrect inventorship can be corrected *if the error was in good faith.*

- 发明人署名错误是专利无效理由
- 但是，如果这种错误是善意的，可以要求改正署名错误。

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No. (7) [Validity]
Ownership Rights
from Co-Workers

第7 有效性
合作者的所有权

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- Ownership rights should be secured from ***all*** coworkers as part of employment agreement.
- If true coinventor may sue for inventorship correction and part ownership in the **invention** ***even after the grant of the patent.***

- **以劳动合同的形式确定所有权的归属**
- **即使在授予专利权以后，真实的共同发明人可以提起诉讼要求更改发明人并且对该发明主张部分权利**

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- The best defense against coinventorship lawsuit is assignment of inventorship rights as part of employment agreement or rules.
- If person is named as a coinventor he may assign right to use invention to competitors ***without permission and without sharing compensation***.
- 对于共同发明人提起的诉讼，最好的抗辩理由是发明权益转让是劳动合同或公司规章的一部分。
- 作为共同发明人的一员，该发明人可以将该发明的使用权转让给竞争对手无须其他发明人的同意并且也无须将该使用费与其他发明人分享

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No. (8) [Validity]
Best Mode Contemplated
第8 有效性
最佳实施例

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- A preferred embodiment ***recognized by the inventor*** invention must be *disclosed.*
- Inventor *shall* disclose "best mode ***contemplated***". 35 USC § 112, ¶ 1.
- Failure to disclose preferred embodiment may result in patent invalidity.
- 发明人认为的本发明优选实施例必须在说明书中公开
- 根据美国专利法第112条，发明人需要在说明书中公开最佳实施例
- 未公开优选实施例将有可能导致专利的无效

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- If the preferred embodiment is recognized as such *only after the filing date* then there is no need to disclose or identify that preferred embodiment.
- Critical date is the *priority date*.

Transco Products Inc. v. Performance Contracting, Inc., 38 F.3d 551 (Fed. Cir. 1994)(Rich, J.)

- 如果只有在申请日以后才确定优选实施例，则没有必要公开或确定该优选实施例。
- 关键日是优先权日.

Transco Products Inc. v. Performance Contracting, Inc., 38 F.3d 551 (Fed. Cir. 1994)(Rich, J.)

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No. (9) [Enforceability]
Citing Closest Known Prior Art when Filing
第九 可操作性
在申请专利时引用最接近的现有技术

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- It is unnecessary to cite closest prior art ***in the specification***.
- It ***is*** necessary to cite closest prior art in *some fashion* e.g., Information Disclosure Statement.
- 并没有强制性规定在说明书中要引用最接近的现有技术
- 以一些形式，例如信息公开申明，来引用最接近的现有技术是必须的。

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- Failure to cite best prior art is a very serious problem.
- Late submission of prior art – particularly before the grant of the patent – may be possible, although continuing application may need to be filed.
- 没有引用最接近的现有技术将导致非常严重的后果
- 延迟提交现有技术，尤其在专利授权之前提交是可以的，但是可能需要提起后续专利申请

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No. (10) [Enforceability]
Updating Prior Art Knowledge
第10 可操作性
更新现有技术

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- After Examiner has cited best prior art *known to him,* then ask the inventor if the Examiner is correct:
- If there is better prior art than what the Examiner has cited, then the better prior art must be cited to the PTO.
- 审查员会引用他认为的最接近现有技术，然后会向发明人确认审查员的引用是否正确；
- 如果有比审查员引用的现有技术更加接近的现有技术，该更加接近的现有技术必须向专利局通报。

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Thank You
谢谢！

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