

Specific Types of Claims

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Importance of having different categories

- Product and method
 - What distinguishes a method from a product?
- Think about infringement
 - A product claim can be infringed when ...
 - A simple method claim can only be infringed when ...
 - A claim directed to a process of making a product can be infringed when ...
- In order to obtain a full protection, it is important ...
 - To include different categories of claims in one application

Very artificial distinction

- Distinction between method and product claims is **artificial**.
 - The inventor has nothing to do with it.
 - Inventions occur without any regard to this distinction!
- It is important **for a patent attorney** to find the best claiming strategy for a given invention.

Typical product claim

A typical product claim lists **elements** and has **tying features**

1. An apparatus for supporting a camera, comprising:
 - a pivotal mounting configured to hold the camera, and
 - a plurality of legs arranged to support the pivotal mounting.

Typical method or process claim

A list of steps – ...ing steps – simple.

1. A process for producing fried rice, comprising **the steps of:**
 - turning** the heat source on;
 - cooking** rice in water over the heat source for a predetermined period;
 - placing** a predetermined amount of oil in a pan;
 - cooking** other ingredients and seasoning in the pan over the heat source;
 - placing** the cooked rice in the pan; and
 - stirring** consistently the rice and the other ingredients for a predetermined length of time over the heat source.

Use different words between product and method claims, and don't mix

- Product claims are made up of physical elements and features.
 - Apparatus, device, machine, **system** or even **computer program** characterize product claims.
 - “**means**” is for product claims only (provably).
- Method claims are made up of ...ing steps.
- Product and method claims **MUST** be clearly distinguished.
 - Do not include method steps (...ing steps) in a product claim.
 - Do not characterize a method claim as a system.

Product claims (apparatus or device)

- Specify structure
 - The basic rule
- May use functional language
 - Instead of “a screw and a nut”, you may say “restraining means” or “means for restraining”
 - Look very broad and may be broad
- Potential problems?
 - Yes. US Patent Law Section 112(f)
 - Other jurisdictions?

Examples – product claims

1. An apparatus for supporting a camera, comprising:
a pivotal mounting configured to hold the camera, and
a plurality of legs arranged to support the pivotal mounting.

Functional...

1. An apparatus for supporting a camera, comprising:
first means for pivotally holding the camera, and
second means for supporting the first means.

Product claims (compound or composition)

1. A compound of formula 1 shown below:
(chemical formula)
wherein X may be H, Br or I and Y may be a methyl or ethyl group.
1. A composition for beverage, comprising:
water;
an artificial sugar substitute;
a peach flavoring; and
xanthan gum.

An example of composition claim

1. A copper electroplating solution, comprising:
 - an alkaline solution of copper sulfate at a concentration of 30-50 g per liter;
 - sulfuric acid at a concentration of 2-4 times that of the copper acetate solution; and
 - an aqueous solution of a pH-modifying substrate **in an amount sufficient to adjust the pH to a value of 3.5 to 5.0.**

Is this claim clear?

Probably yes.

Markush group in product claim

- Markush group
- “X is one element selected from the group **consisting of** H, Br and I”
 - “consisting of” is a **closed** language.
 - The group is **limited** to H, Br, and I. No other elements included.
- Less limitative
- A pharmaceutical composition consisting **essentially** of active substances A, B and C.

Use claim

- Use claims are generally considered as method claims.
- Typical use claim
 1. Use of substance X as an insecticide.

This is equivalent (?) to:

1. A method of killing insects by using substance X.

What about ?

1. An insecticide comprising substance X.

Use of use claim

When compound A is new, claim –

1. Compound A having a chemical formula shown below:
(chemical formula).

When compound A is not new, but use as a drug is new:

1. Use of compound A in manufacturing a drug for prostate cancer. (so-called Swiss-type claim)

Nowadays -

1. A pharmaceutical composition for curing prostate cancer, comprising compound A or its pharmaceutically acceptable salt.
1. A method of treating a prostate cancer patient with compound A. (only in the U.S.)

First and second medical uses

- When compound A has been known, you invent the use of it for treating prostate cancer.
 - Claim it as –
 - “A drug comprising compound A.” or
 - “A drug for treating prostate cancer, comprising compound A.” or
 - both
- When compound A has been known for treating prostate cancer, you invent the use of it for treating leukemia.
 - Claim it as “A drug for treating leukemia, comprising compound A.”

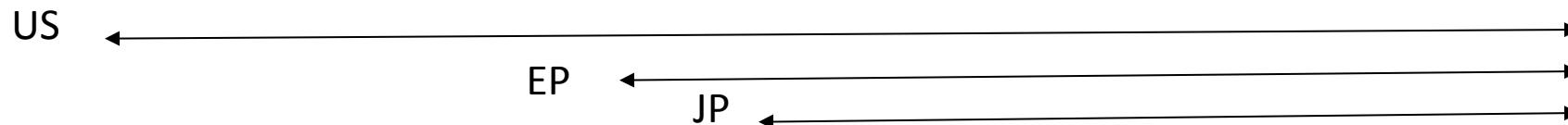
Method of treatment claims

- Before EPO, methods of treatment on humans and animals are now allowed.
- In Japan, methods of treatment on humans are not allowed. Non-human animals are OK.
- In the U.S., methods of treatment are allowable.
- Other jurisdictions...

- Products are generally OK.

Patentable Subject Matters in Medical Fields (US, EP, JP Comparison)

Surgical Methods	Treatment Methods	Diagnostic Methods		Medical Devices	Pharmaceuticals
Operations	Gene therapy	Genetic diagnosis		Medical Devices	Pharmaceuticals
Anesthesia	Regeneration of skin or bones	Endoscopic diagnosis		Method for making medical devices	Method for preparing pharmaceuticals
Others	Dialysis	NMR	Blood or body fluid sample testing (using samples separated from a human body)	Method for controlling medical devices	Kits
	Contraceptive methods	X ray		Biological products (e.g. cultured skin)	
	Delivery methods	Blood pressure		NMR, X-ray, etc.	
	Administration of drugs				



In Japan, medical treatment and diagnostic methods are not patentable for humans only. Methods on non-human animals are patentable.

Product-by-process claims

- For antibiotics, metals, alloys, and semiconductors ...
- Certain products can only be defined by manufacturing processes or method steps.
- An antibiotic obtained by growing a certain mold on culture media and purifying an extract.
- A metal product produced by annealing a specific alloy from temperatures X to Y at a rate of Z degrees per second.
- A semiconductor device produced by sputtering atoms X onto a silicon substrate at a rate of Y and covering it with an insulating layer.

Issues with product-by-process claims

- Whether a product-by-process claim cover products made by a **process other than the one recited** in the claim?
 - Most patent offices would say “yes” for the purpose of examination.
- For this format to be allowed, does it have to be **the only way** to define the invention ?
 - Maybe yes, but varies among different jurisdictions.
- Obtained, obtainable or directly obtained?

Computer implemented inventions

- Very confusing and different in one jurisdiction to another.
- Business methods *per se* are generally not patentable, probably.
- Software steps tied to hardware may be patentable in some jurisdictions.
 - How you claim them is another question.
- The U.S. is most problematic for now.

Claiming computer-implemented inventions

- A computer-readable storage media containing ...
- A computer program product ...
- A computer program ...
 - A computer program for carrying out the steps of ...ing
- A signal produced by encoding data by the steps of ... (say, under the MPEG specification).
 - Europe only?

Examples

1. A computer-readable storage medium storing instructions that, when executed by a computer, cause the computer to perform a method for using a computer system to perform financial transactions, the method comprising the steps of: ...

Data structure ...

1. A memory for storing data for access by an application program being executed on a data processing system, comprising a data structure stored in the memory including information resident in a database used by the application program and including:
a first data object configured to ...,
a second data object configured to ..., and
a third data object configured to

Biotechnology claims

- Microorganism, cDNA, recombinant DNA, DNA fragments, protein, monoclonal antibodies, anti-sense DNA and RNA, recombinant vectors and expression vectors ...
- Deposit of biological materials is possible.
 - Budapest Treaty of 1977.
 - A list of depository organizations
 - Microorganisms, seeds, cells, etc. can be deposited.

Typical bio claims

1. An isolated polynucleotide comprising a member selected from the group consisting of:
 - (a) a polynucleotide encoding a polypeptide comprising amino acids 1 to 255 in SEQ ID NO: 2; and
 - (b) a polynucleotide which hybridizes to and which is at least 95% complementary to the polynucleotide of (a).
 2. The polynucleotide of claim 1, comprising nucleotides 1 to 1080 of SEQ ID NO: 1.
-
1. A seed of cotton cultivar designated PHY 78 Aacla, wherein a representative sample of seed of said cultivar is deposited under ATCC Accession No. PTA-5666.

Omnibus claims

- An apparatus for harvesting corn as described in the description.
- A juice machine as shown in Fig. 4.
- Acceptable in Australia and New Zealand, but elsewhere?

Quizzes 1

- What distinguishes method claims from product claims?
 - Element of time
- Are “use claims” allowable in many jurisdictions?
 - Provably yes.
- Are “use claims” useful?
 - Provably not any more.

Quizzes 2

- What's wrong?
 1. An apparatus for harvesting corn, comprising:
 - a thrasher for cutting corn;
 - moving the cut corn into a hopper; and
 - rotating pivot means attached to the thrasher.