

■ Specific Types of Claims

National Patent Drafting Course

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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

Directly-infringing act in Japan is...

- Product claim (incl. computer program)
 - To make
 - To use
 - To sell
 - To export
 - To import
 - To offer for sale

- Simple method claim
 - To use

- Method of making product claim
 - To use the method (i.e., to make a product)
 - To use, sell, export, import, or offer for sale of the product made by the method

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.

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.