

# Claim Format and Claim Sets (Chapter V.B and C)

Topic 7

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*Takao Matsui*

Patent Attorney,  
Okabe International Patent Office , (Tokyo Japan)

Japan Patent Attorneys Association (JPAA)

- Claims is the section to define the scope of the patent after granted.
- Claims defines the object of the Examination.
- A claim has to specify the invention.
- A claim has to be interpreted as one meaning.
- A Claim has a function to focus on the invention.
- A claim is required to be written,
  - i) concisely,
  - ii) clearly, and
  - iii) only by words without using drawings,  
but allowed to refer numerals in drawings.

# Overview

1. Claim Format

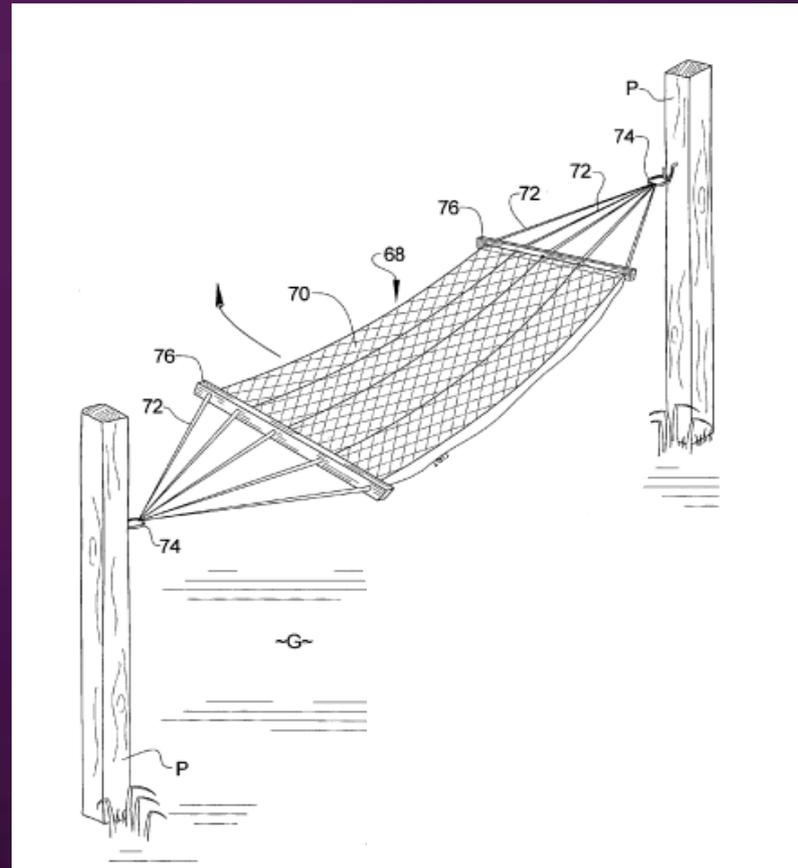
2. Claim Sets

# 1. Claim Format

# 1. Claim Format

## ✓ The structure of a Claim

- Preamble
- Transition
- Body



# 1. Claim Format

## ✓ The structure of a Claim

1. A sleeping apparatus comprising:

two masts; and

a net whose one end is connected to one of the masts and the other end is connected to the other of the masts.

# 1. Claim Format

## ✓ The structure of a Claim

- Preamble → The preamble is an introductory part for defining and clarifying the subject matter of the scope of a claim.
  - Transition
  - Body
- For example, the most simple types of preamble is only “an apparatus”, “a method” and “a computer program” and so on. In addition to them, the preamble frequently includes the preamble includes “use application”, “relationship to something” and so one.

# 1. Claim Format

## ✓ The structure of a Claim

- Preamble
  - Transition
  - Body →
- Body is the part for listing features of the invention. Minimum features should be listed.
- If all features is disclosed in one document as a prior art, the invention is not novel.
  - Implementing all features in a claim constitutes a patent infringement in a litigation.

# 1. Claim Format

## ✓ The structure of a Claim

- Preamble
  - Transition →
  - Body
- Transition is the part for showing the condition of listed features with regard to the subject matter in the preamble. Typically, “comprise”, “include” or “consist” is used. The interpretation of those is defined in each jurisdiction. For example, in the US, “comprise” and “include” are used as an open-end clause, while “consist” is used as a close-end clause.

# 1. Claim Format

## ✓ Claim phrases

- Transition sentence

comprise, comprising, include, including, consist of, consisting of, have, having...

- Indication of characteristics

wherein, characterized in that, characterized by, whereby, thereby, the improvement includes,

# 1. Claim Format

✓ The structure of a Claim

Preamble

Transition

1. A sleeping apparatus comprising:

two masts; and

a net whose one end is connected to one of the masts and the other end is connected to the other of the masts.

feature, or element

Body

# 1. Claim Format

## ✓ The structure of a Claim

1. A sleeping apparatus for providing rest to a user by swing, comprising:

two masts extending vertically; and

a net whose one end is connected to one of the two masts and another end is connected to another of the masts.

- ## ✓ The purpose of adding a restriction phrase in preamble is to
- : 1) clarify the subject matter , or
  - 2) present a term in advance to be recited in the body part.

# 1. Claim Format

## ✓ The structure of a Claim

1. A sleeping apparatus comprising:  
two masts; and  
a net whose one end is connected to one of the masts  
and the other end is connected to the other of the masts.

B

A

X

$$X = A + B$$

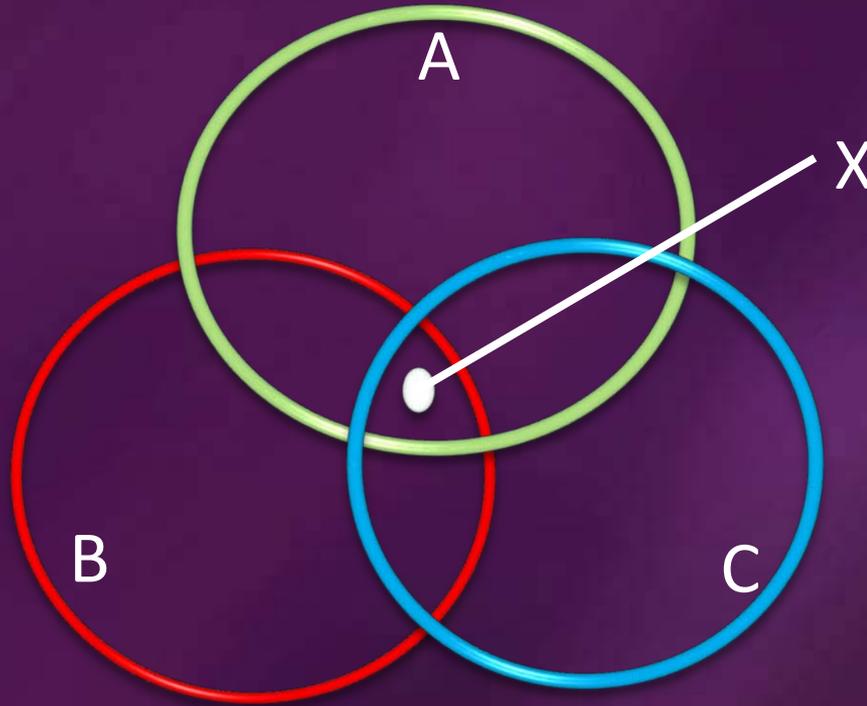
# 1. Claim Format

## ✓ Multiple elements

- No rule for the number of elements claim as a format
- A line-by-line form is commonly used for clarifying features in a Claim. Claim punctuations are used for clarify each feature in a Claim.

# 1. Claim Format

- ✓ Multiple elements



# 1. Claim Format

## ✓ The Format of a Claim

- No rule regarding a claim format including punctuation
- Commonly used claim punctuations help all readers of a claim for the interpretation of Claims.

# 1. Claim Format

## ✓ Claim punctuation

1. X comprising:

A;

B; and

C.

colon

semi-colon

the connection by “and” just before the last feature

# 1. Claim Format

- ✓ The structure of a Claim

1. A sleeping apparatus comprising:  
two masts extending vertically; and  
a net whose one end is connected to one of the  
masts and the other end is connected to the other  
of the masts.

- ✓ A claim is generally formed NOT by a sentence but a  
clause.

# 1. Claim Format

- ✓ The structure of a Claim

1. A sleeping apparatus characterized in that, two masts are vertically extended, one end of a net is connected to one of the two masts, and the other end of the net is connected to the other of the two masts.

- ✓ In Europe, especially Germany, a claim is frequently formed by a sentence.

# 1. Claim Format

- ✓ The structure of a Claim
  - For what a restriction of a term is needed ?
  - How a subject matter is restricted ?
  - How restriction words should be chosen ?

# 1. Claim Format

- ✓ Limitation technique of a claim

1. A sleeping apparatus comprising:

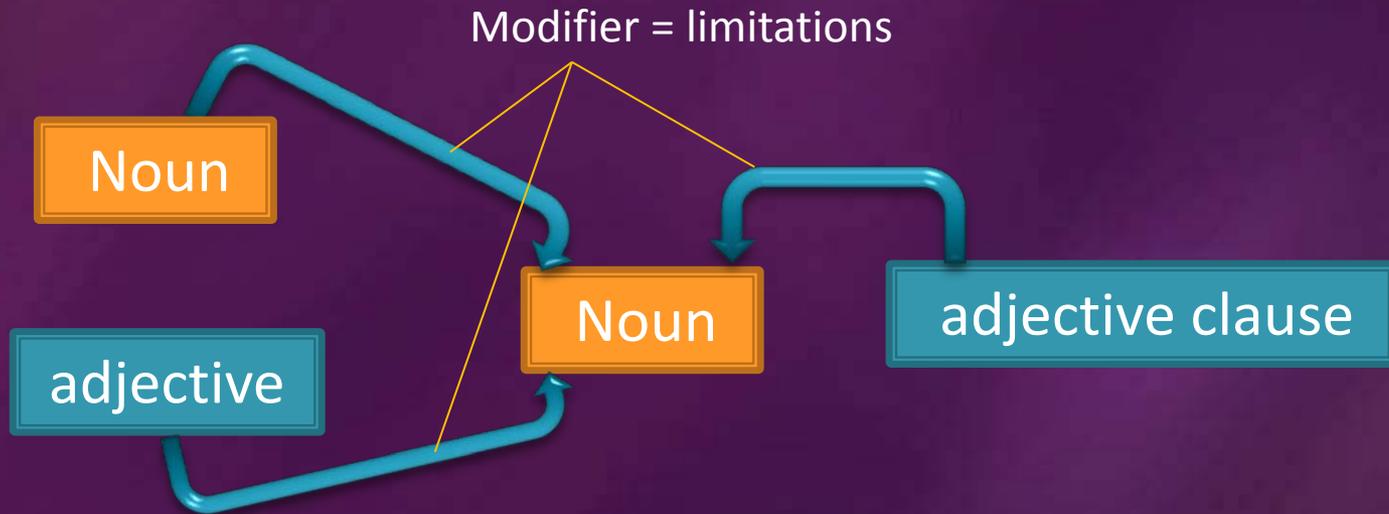
two masts extending vertically; and

a net whose one end is connected to one of the masts and the other end is connected to the other end of the masts.

- ✓ A claim is generally formed not by a sentence but a clause.

# 1. Claim Format

- ✓ Limitation technique of a feature



# 1. Claim Format

- ✓ Limitation technique of a feature (Antecedent basis)
  - First appearance = “a”, indefinite article is used to introduce the feature
  - Second appearance and later = “the”, definite article is used to specify the precedent feature

# 1. Claim Format

- ✓ Limitation technique of a feature (Antecedent basis)

1. A sleeping apparatus comprising:

a net ; and

two masts extending vertically,

wherein one end of the net is connected to one of the two masts and the other end of the net is connected to the other of the two masts.

# 1. Claim Format

- ✓ Limitation techniques of a feature
  - A police
  - A police running after a thief
  - An elder police running after a thief shooting a gun
  - An elder police and a younger police, the elder police running after a thief shooting a gun, the younger police blocking a thief's path

# 1. Claim Format

- ✓ Open-end and close-end clauses
  - Open-end-clause “comprising”

Products including  $X = A + B$  are within the scope of the Claim. In open-end-clause, it is necessary that the subject matter  $X$  includes  $A+B$ .
  - Close-end-clause “consisting of”

Products including only  $X = A + B$  are within the scope of the Claim. In close-end-clause, it is necessary that the subject matter  $X$  is only  $A+B$ .

# 1. Claim Format

- ✓ Two types of features

- Claim has to includes two types of features:

- 1) one is to specify the features of present product;  
and

- 2) the other is to specify the meritorious feature not disclosed in prior arts.

# 1. Claim Format

## ✓ Two types of features

1. A sleeping apparatus comprising:

a net;

two masts extending vertically, wherein one end of the net is connected to one of the two masts and the other end of the net is connected to the other of the two masts; and

a rocking device for causing a rocking motion to the net.

# 1. Claim Format

## ✓ Two-part form

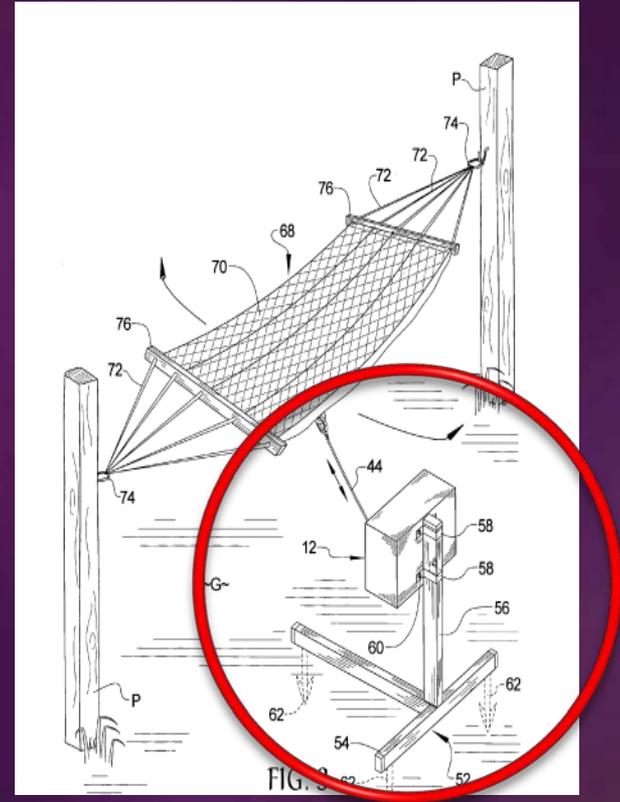
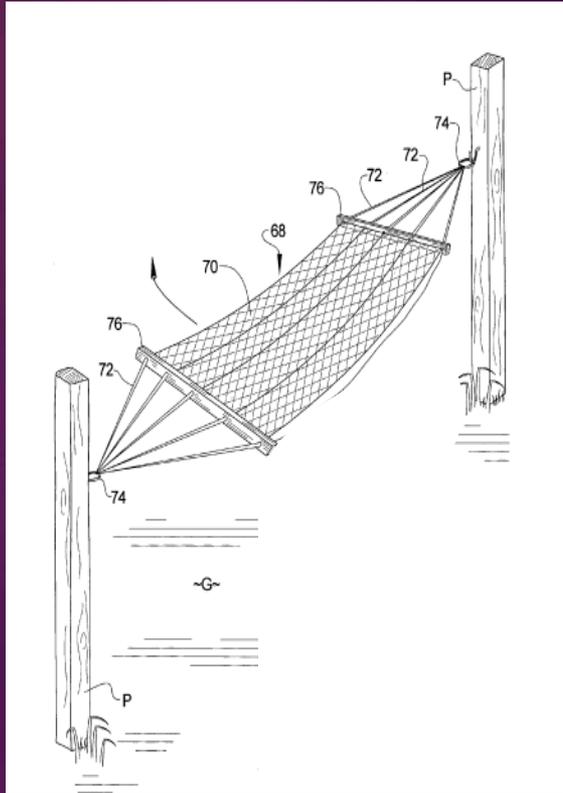
- A two-part form is the format of clarifying the characterized feature in comparison with the technology of the context of the invention.
- “... characterized in that + a sentence...” or “...characterized by + a noun/a cause” is the expression of the two-part form.

# 1. Claim Format

## ✓ Two-part form

- In two-part form claim, in general, the technical matter in the description before those expressions in a Claim is recognized as a prior art admitted by an applicant or a patent owner.

# 1. Claim Format



# 1. Claim Format

## ✓ Two-part form

1. A sleeping apparatus comprising:

two masts; and

a net whose one end is connected to one of the two masts and the other end is connected to the other of the two masts,

characterized by:

a swing device having a cable connected a part of the net member, the swing device repeating pulling and retuning of the cable.

wherein

# 1. Claim Format

## ✓ Functional expression

- In a Claim, the invention should be specified by structures.
- Fundamentally, however, because there is no rule of expression for choosing claim word, the invention is sometimes specified by a function or an effect. This is a functional expression.

# 1. Claim Format

- ✓ Functional expression
- Example

Gun =

1. An apparatus for shooting a bullet to a target.
2. An apparatus comprising:
  - a cylinder; and
  - a hammer positioned at one end of the cylinder, for hitting a bullet toward the other end of the cylinder.

# 1. Claim Format

## ✓ Functional expression

- The essence of the functional expression is “desire”, “unfairness without disclosing specific idea” and “request for unfairly broad scope.”
- A Claim specified by functional expressions is not rejected by the reason why claim is fictional in the prosecution of a patent application. It, however, tends to be rejected under the lack of clarity or novelty.

# 1. Claim Format

- ✓ Means-plus-function claim
  - Means-plus-function claim has an appearance specified by structures. It, however, its features are all specified by functional expression, “mean” specifying no subject matter in addition to functional expression.
  - Especially, in the US, there is a court decision in which the scope of means-plus-function claim is restricted the embodiment disclosed in the specification.

# 1. Claim Format

## ✓ Functional expression

- On the other hand, however, because the functional expression is convenient and necessary to make a broad claim, it is not prohibited. Appropriate number of detail embodiments are required in specification.
- A practitioner do not afraid to use a functional claim and means-plus-function claim but prepare the support of embodiment as much as possible and supplemental claims specified by structures.

# 1. Claim Format

## ✓ Reference Numerals

- There is a claim having numerals in each feature. This is reference numerals to indicate corresponding members in drawings.
- Requirement for reference numerals are different in jurisdictions. Claims has to have reference numerals in EPC, while it is not necessary in the US.

# 1. Claim Format

## ✓ Reference Numerals

- Reference numerals are useful as appendix information for facilitating understanding abstract terms in each feature by showing corresponding members in drawings.
- In the contrast, in general, an applicant, agent and attorney recognize reference numerals in claims as a risk to limit the interpretation of terms only to members showing in drawings.

# 1. Claim Format

## ✓ Bracket Expression

- The bracket expression is sometimes used in the case where there are some good terms that cannot be determined to one term. In general, it is not allowed because it causes unclarity of the scope.
- Practitioners should not use the bracket expression because practitioners has to have a skill to obtain the protection of the invention by sets of claims.

# 1. Claim Format

## ✓ Alternative phrases

- An alternative phrase is used for listing options of elements in the case where there are some options as subject matter cannot be specified one in a feature of a claim.
- Example
  1. A sleeping apparatus comprising:  
two masts; and  
a net whose both ends are connected to the masts by wire cables or chain.

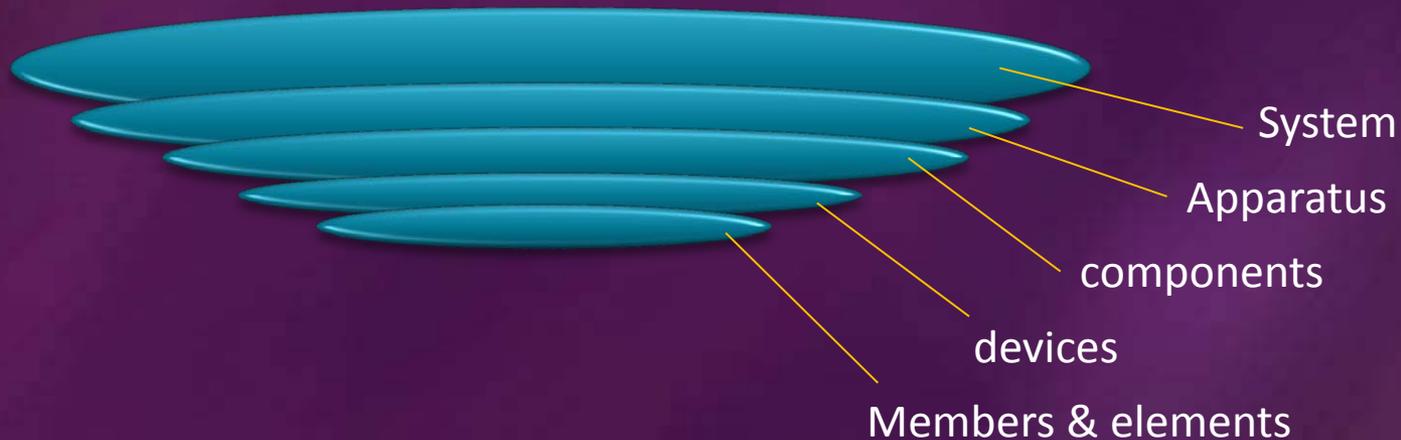
# 1. Claim Format

## ✓ Alternative phrases

- One of the types of claims using an alternative phrase is “Markush-type claim”. In Markush-type claim, “selected from a group consisting of” is typically used as an phrase.
- Example
  1. A preformed adhesive comprising:
    - a base film selected from a group consisting of a polyethylene, polypropylene, polystyrene and acrylic polymer;
    - a first adhesive layer reactive with a metal, applied on one side of the film; and
    - a second adhesive layer reactive with a resin, applied on the other side of the film.

# 1. Claim Format

- ✓ If a part of an invention layer has an inventive step, in general, it is possible to make some independent claims including the part.



# 1. Claim Format

## ✓ Example

1. A lighting device comprising:

2. A camera comprising:

a lens provided..

a lighting device ...;

3. A control device for controlling a lighting device attached on a camera including a lens ... and a lighting device, the lighting device including..., wherein the control device comprises: .....

## 2. Claim Sets

## 2. Claim Sets

- ✓ Independent Claims and dependent Claims
  - Currently, all countries allow multiple claims in an application. An invention can be protected by a set of multiple claims from different perspectives.
  - The claim set using independent and dependent claims is one of the ways to protect an invention in the different levels.
  - An independent claim is a claim listing features without reciting other claims. A dependent claim is a claim depending on claims and narrower than an independent claim.

## 2. Claim Sets

### ✓ Independent Claims and dependent Claims

A dependent claim is an independent claim !

1. A vessel for dispensing a liquid comprising a hollow body adapted to be filled with a liquid and means for discharging the liquid, characterized in that the means for discharging the liquid consists of a plurality of spouts.

2. A vessel for dispensing a liquid comprising a hollow body adapted to be filled with a liquid and means for discharging the liquid, characterized in that the means for discharging the liquid consists of a plurality of spouts, wherein the vessel has a handle.

## 2. Claim Sets

### ✓ Independent Claims and dependent Claims

A dependent claim is an independent claim !

1. A vessel for dispensing a liquid comprising a hollow body adapted to be filled with a liquid and means for discharging the liquid, characterized in that the means for discharging the liquid consists of a plurality of spouts.

2. A vessel according to Claim 1, wherein the vessel has a handle.

## 2. Claim Sets

### ✓ Independent Claims and dependent Claims

- Types of independent claims

1. Independent Claim  $X = A + B + C$

Dependent Claim  $X = A + B + C + D$

2. Independent Claim  $X = A + B + C$

Dependent Claim 1  $C=C1$  ( $X = A + B + C1$ )

Dependent Claim 2  $C=C2$  ( $X = A + B + C2$ )

## 2. Claim Sets

- ✓ Independent Claims and dependent Claims
  - An independent claim is a claim listing features without reciting other claims. A dependent claim is a claim merely reciting the features of another claim.
  - The set of claims are a cluster of claims as measure for protecting an invention.
  - For what a dependent claim is needed although an independent claim is broader?

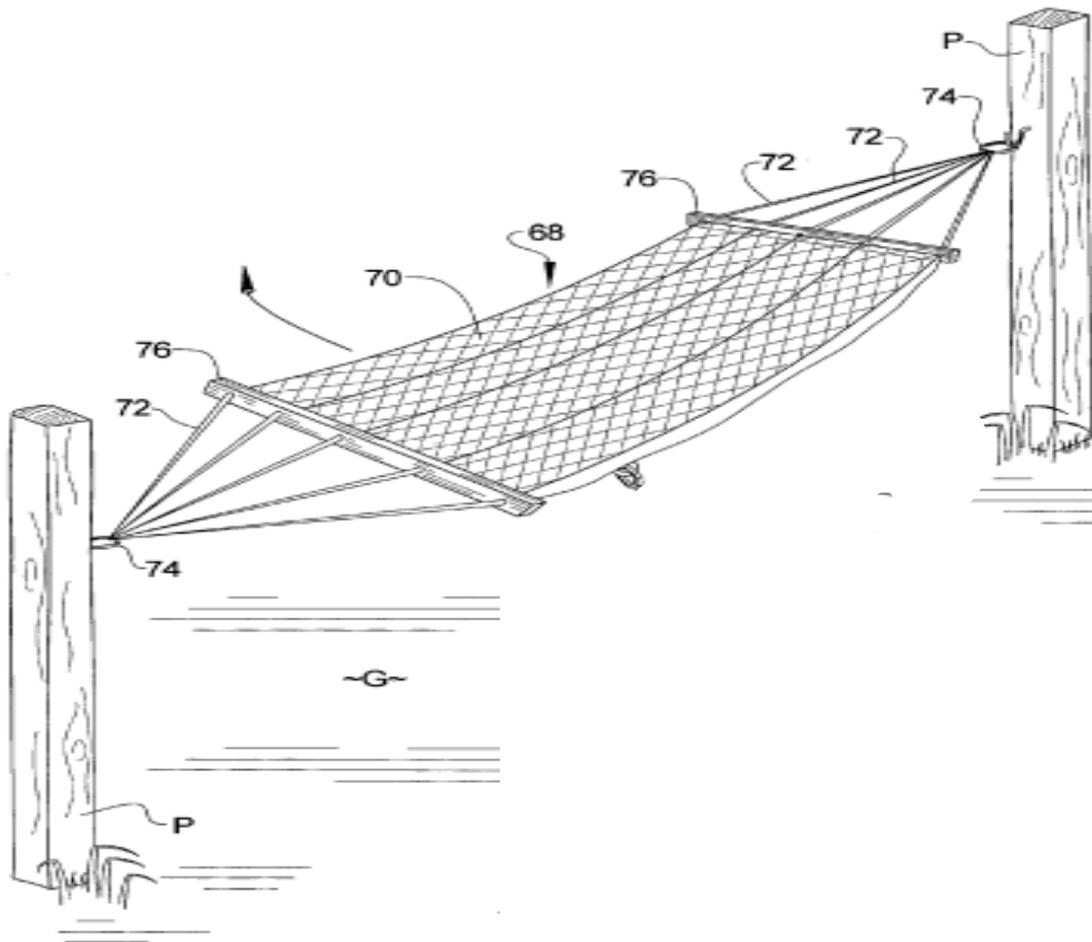
## 2. Claim Sets

### ✓ Independent Claims and dependent Claims

- Functions of dependent claims are:

- 1) to show a concrete embodiment as a substitution of an abstract word of an independent Claim  
e.g. “vessel” in an independent claim vs “pot” or “kettle”
- 2) to be a shield that is still valid, even if an independent claim is invalid or revoked
- 3) to make the invention in an independent claim clear.

# 1. Claim Format



## 2. Claim Sets

### ✓ Independent Claims and dependent Claims

- Example 1

1. A sleeping apparatus comprising:  
two masts; and  
a net whose each end is connected to each of the two masts by fixing means.
2. A sleeping apparatus according to Claim 1, further comprising a couple of bar for extending the net in a lateral direction.

## 2. Claim Sets

### ✓ Dependent Claims and Independent Claims

- Example

1. A sleeping apparatus comprising:

two masts;

a rope whose one end is connected to the two masts by fixing means;

a net whose each of the ends are connected to the other end of a rope.

2. A sleeping apparatus according to Claim 1, wherein the fixing means is adhesive.

3. A sleeping apparatus according to Claim 1, wherein the fixing means is a bolt.

## 2. Claim Sets

### ✓ Dependent Claims and Independent Claims

- Example

1. A sleeping apparatus comprising:

two masts;

a rope whose one end is connected to the two masts by fixing means;

a net whose each of the ends are connected to the other end of a rope.

2. A sleeping apparatus according to Claim 1, wherein the fixing means is adhesive.

3. A sleeping apparatus according to Claim 1, wherein the fixing means is a bolt.

## 2. Claim Sets

### ✓ Dependent Claims and Independent Claims

- Example

1. A sleeping apparatus comprising:

two masts;

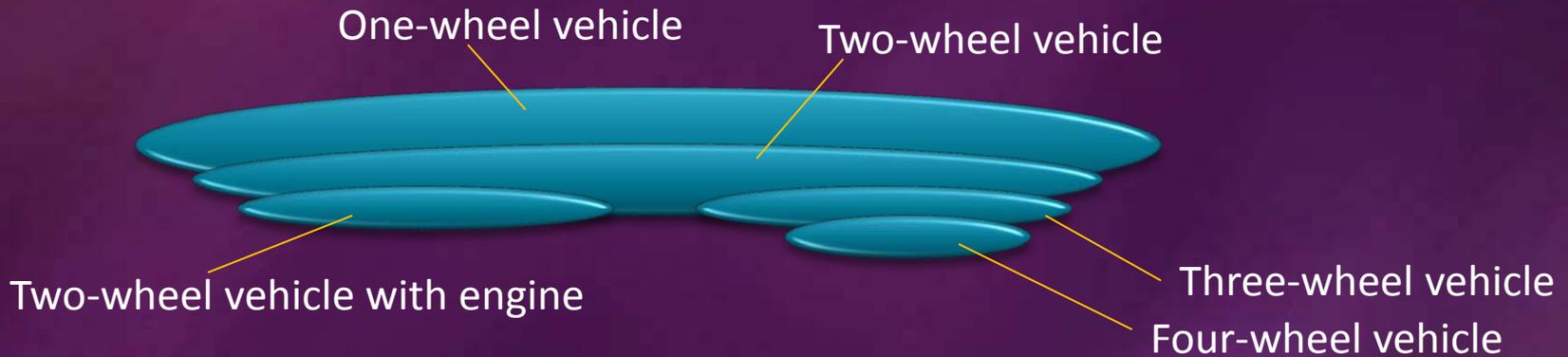
a rope whose one end is connected to the two masts by fixing means;

a net whose each of the ends are connected to the other end of a rope.

2. The sleeping apparatus according to Claim 1, wherein the fixing means is adhesive.

3. The sleeping apparatus according to Claim 1, wherein the fixing means is a bolt.

## 2. Claim Sets



- The relationship between an independent claim and dependent claim corresponds to invention layers.

## 2. Claim Sets

- 1. A vehicle comprising:  
a wheel unit provided on ...
  
- 2. A vehicle according to Claim 1, wherein the wheel unit has one wheel...
  
- 3. A vehicle according to Claim 1, wherein the wheel unit has two wheel...

## 2. Claim Sets

### ✓ Dependent Claims and Independent Claims

- Example

1. A sleeping apparatus comprising:

two masts;

a rope whose one end is connected to the two masts by fixing means;

a net whose each of the ends are connected to the other end of a rope.

2. The net according to Claim 1.

## 2. Claim Sets

✓ Multiple dependent Claim

1. An sleeping apparatus comprising: ....
2. An sleeping apparatus according to Claim 1: ....
3. An sleeping apparatus according to Claim 1 and 2: ....

Claim 3 is a multiple dependent Claim.

4. An sleeping apparatus according to any one of Claims 1 to 3: ....

Claim 4 is a multiple-multiple dependent Claim that is a multiple claim depending from the multiple dependent Claim 3.

*Thank you for your attention.*

matsui@okabeintl.gr.jp