Full Patent Drafting

Patent Draft – NIPO

Kindly setup your draft as per the below sequence and please refer the description related to each section, before drafting.

Description

Title of the invention

This should be appeared as in the request (Form P01).

- Should be consistent with the 1st claim of the patent
- The title should be short and to the point – not too short; 'Control system' and 'Chemical' are a bit too brief and uninformative; but
  'Controlling fuel injection' and 'Heterocyclic compounds 'will do

Technical Field

Specify the technical field to which the invention relates. Field of the invention should describe the scope of the invention and subject matter of the invention on which it relates.

This might begin with an indication of the ***technical field*** in question

E.g. *This invention relates to bicycles*.

Background art

Indicate the background art which, as far as known to the applicant can be regarded as useful for the understanding, searching and examination of the invention. Applicant/s can preferably cite the documents reflecting such art. This section should describe what others have done in the field, and what problems have not been solved by prior work. Prior art details obtained from patent databases such as granted patents and patent applications which have been filed all over the world as well as research publications could be referred to complete the background details.(Prior art means everything disclosed to the public, anywhere in the world, by written publication, oral disclosure, use or in any other way, prior to the filing ofthe present patent application).

Eg: Another possibility using autologous graft material is to collect the bone dust during the craniotomy procedure and mix it with a hydrogel like fibrin glue and use that paste to fill out the defect after the procedure (Matsumoto, 1998).

US patent No.6,350,284 ('284) describes a bioabsorbable cranial implant consisting of a rigid plate and a fibrous web layer containing pores between 30 ……

Technical problem

Specific technical problem/s address/es by the invention should be described allowing clear understanding of the technical problem/s.

Technical Solution

The solution/s provided through the invention should be described.

Brief description of drawings

Briefly describe the figures in drawings if any.

Eg. Fig. 1 shows a perspective view of an embodiment

Fig.2 shows a detailed view of an embodiment

Advantageous effects

State the advantageous effects of the invention when compared to the existing solutions/ inventions.

Mode for invention

Disclose the invention in such terms that it can be understood and in manner sufficiently clear andcomplete for the invention to be evaluated as to its novelty, inventive step and industrial application andto be carried out by a person having ordinary skill in the art. The best mode for carrying out the inventionin terms of examples, where appropriate, and with reference to the drawings should be described.

- The basis of the patents system is the grant by the state to the applicant of an exclusive right to exploit the invention. In exchange the applicant has to disclose the invention, or in other words to **provide a full description of how the invention works or how it is made.**

- "Applicant describe the invention clearly and completely enough for it to be carried out by a person skilled in the art.
  What the patent application has to do is to explain how the invention works **in sufficient detail for a person of ordinary familiarity with that particular technical field - to make it (if a product) or carry it out (if a process).** Hence this requirement is sometimes called 'sufficiency'

- Claims that they **must be** 'supported by the description'.
    - If the description simply says that a component is made of 'metal', then the claims cannot say that component can be of aluminium or copper. So that's simply a matter of consistency; make sure that any detail in the claims is also in the description.
    - On the other hand, since the claims are generalisations of the described embodiments, if the description says a component is made of 'aluminium or copper' then that statement will provide support for a generalisation of this, i.e. the claim can say that the component is made of 'metal'

- Words in the description

  Drafting the description is more of a technical than a legal exercise.

  Should be very careful of making absolute statements in the description involving such words as **'must'** and **'always'**.

  Eg: If you say the component 'must' be of metal, that means it's an essential feature of the invention and should arguably be in claim

  Eg: if the temperature should 'always be 120 degrees', the same thing applies. This again is to do with maintaining consistency between what is said in the claims and what is said in the description

- A detailed description of the invention (which may be illustrated by drawings, flowcharts, circuit diagrams, chemical structure diagrams, photographs, computer graphics etc.

<u>Industrial Applicability</u>

State the industrial applications of invention.

Claims

The purpose of the claims is that they define the invention that believed to be new and an inventive (advance) over the prior art and hence claims define the monopoly that applicant will acquire as the holder of the patent. Each claim is usually drafted as a single sentence and must include all the essential constructional features that considered to be inter-related to result the invention. It means that there must be at least one main claim (Independent) which gives all the essential features and their inter relation. Other claims may introduce additional features of the invention if desired.

Important: Claims can be drafted only for technical features of the invention and commercial advantages or other non-technical matters cannot be stated. Claims must be clear and concise and be supported by the description and should be based on the description. This means the claims must be fully explained in the description. If there are several claims, shall be numbered consecutively in Arabic numerals. Claims should be drafted in correct format.

Each claim should consist of an introduction, linking word and body.

The preamble

This part states the category of the invention for the patent seeks protection. The inventor should ensure to keep the preamble consistent with the invention title.

For example,

if the applicant applies to patent a device, then preamble would start with 'A device for…'. Similarly,

if the applicant is applying for a composition of a drug, then preamble would be 'A composition for….'

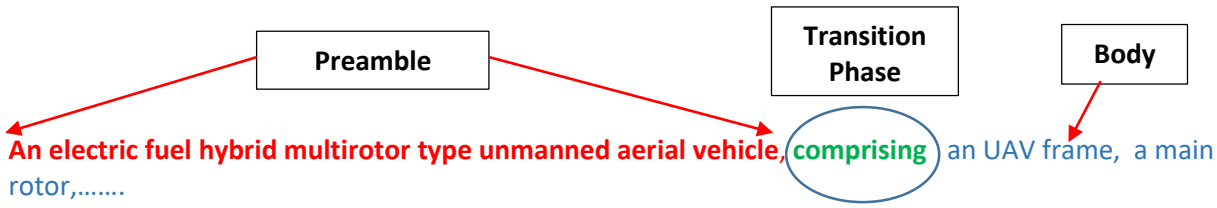
If the applicant is applying to patent a methods, then preamble would be 'A method for ….'

Transitional phrases

They are usually open-ended phrases that bring out an understanding that the claim is limited only to the listed elements or includes other processes with additional features. The word 'comprising' is a common open-ended phrase that portrays a broad claim and will cover elements not given in the claim. Some inventors prefer close-ended phrases such as 'consisting of,' which signifies a more specific and narrower claim. The close-ended phrase will cover only the elements listed in the claim.

The claim body

This part of the claim includes all limitations and elements of the claim and explains the relationship between them.



Generally, the first claim is called "Independent Claim" which reflects the whole picture of the invention. The claim which depends on a claim or several claims is called dependent claim. Generally, the subsequent claims of an independent claim are Dependent Claims.

First claim (Independent claim), describe the invention with the name and mentioned each of the part/unit in words comprising and brief the use of each unit/part which are needed to complete this invention.

It is a MUST start the first claim with "A" for NIPO applications.

Eg:

1. An aerobic digestion toilet (1) including a chamber (2), a toilet bowl (3) above the chamber (2) having an outlet vent (4) and means (4;8) for generating convection flow through the chamber (2) from adjacent the floor thereof through the outlet vent (4) from

2. An electric fuel hybrid multirotor type unmanned aerial vehicle, comprising an UAV frame, a main rotor (2)……

3. A bioabsorbable plug implant, suitable for bone tissue regeneration, comprising a first portion, and second portion , the first and second portions formed from expandable material,

4. A process for preparing an extract of a plant of the genus Trichocaulon or of the genus Hoodia, the process including the steps of

   a). treating collected plant material with a solvent to extract …….
   b). ……

In other claims (dependent claims), have to have a link to the main claim. Dependent claims write in a way as below

"invention name/the product or process need to protect" according to claim no 1 wherein said "the part you want to describe". Dependent claims start from "The" for NIPO applications

Eg:

1. The aerobic digestion toilet as claimed in claim 1, in which the tray (21) is inclined at different angles along its length being at a steeper angle adjacent the conveyor (16) than the remainder of the tray (21) remote from the conveyor (16).

   An aerobic digestion toilet as claimed in any one of the preceding claims in which the conveyor

2. The electric fuel hybrid multirotor type unmanned aerial vehicle according to clam 1, wherein said one or more yaw compensation motors which attached to the arms of the UAV

3. The plug implant of claim 1, wherein the plug implant has a completely interconnected porous architecture

4. The process ……as claimed in claim 1, wherein the plant of the genus Trichocaulon is selected from the species

When both product and process are covered from a single patent, able to write two independent claims as;

First set of claims; independent claims of product, then dependent claims.

Second set of claims; independent claims of method, then dependent claims.

Abstract

The abstract is a brief summary of the invention. It should be a summary of the disclosure as contained in the description, the claims and any drawings. The abstract shall be as concise as the disclosure permits (preferably 50 to 150 words).

Drawings

The drawings show the technical details of the invention in an abstract and visual way. Drawings are not always a necessary part of the application. If the invention is for a process or a method of doing something, drawings usually are not required.

· The drawings shall not contain text matter except to the extent required for the understanding of the drawings.
· Drawings shall be executed in well-defined, lines and strokes.
· All numbers and reference lines should be appeared clear.
· The same sheet of drawings may contain several figures.
· The different figures shall be numbered consecutively and independently of the numbering of the sheets.
· Reference signs not mentioned in the description shall not appear in the drawings, and vice versa.
· If the drawings contain a large number of reference signs, it is strongly recommended to attach a separate sheet listing all reference signs and the features denoted by them.
· Flow charts may be used, specially for process patents.

Line drawings showing side view, corner view to clearly understand the invention.
Use numerical notations to identify components inside a drawing. (Link them with claims and the description section)

Here are some points to bear in mind when preparing drawings:

- The drawings may show details of a mechanical device, a chemical structure, a flowchart, a circuit diagram – in fact whatever is the clearest way of helping the reader to understand the invention

- The level of detail shown in the drawings will again depend on the invention

- In a simple invention such as the pencil and eraser example shown below, Figure 1 of the drawings shows a three-dimensional view of the invention, and Figure 2 a cross-section. Everything is illustrated, but note that no dimensions are given, since they are not necessary to understand the invention. Parts of the invention referred to in the description should be indicated by reference numerals, so that the description can refer for example to a pencil 1 and an eraser 3.

- Each reference numeral should indicate the same part in all the drawings

- These are not engineering drawings, they can be relatively informal

Fig 1

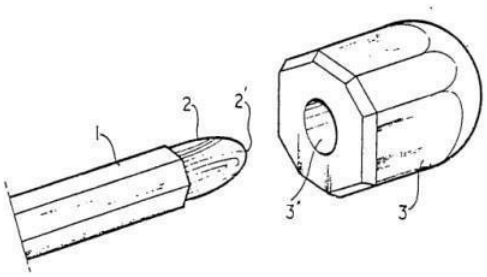
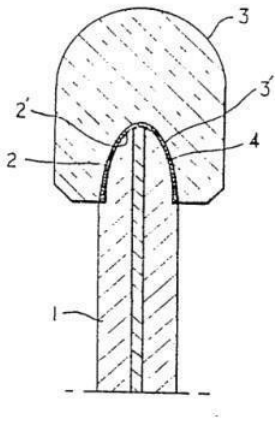


Fig 2



- In the case of a method or process, the invention might be best illustrated by a flowchart.

- As noted above, as well as drawings, the description may be illustrated by flowcharts, circuitdiagrams, chemical structure diagrams, photographs, computer graphics etc.

References:

NIPO Patent guideline