



## **GUIDELINES FOR SEARCH AND EXAMINATION OF PATENT APPLICATIONS**

**INDIAN PATENT OFFICE**



**OFFICE OF THE CONTROLLER GENERAL OF PATENTS, DESIGNS AND  
TRADEMARKS**

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## Chapter 1

### Introduction

#### 1.1 Overview Of The Indian Patent System

Patent system provides a judiciously tailored bargain that rewards an inventor in lieu of the disclosure of his invention to the society. A patent confers, for a limited period, an exclusive right upon the patentee to prevent third parties, who do not have his consent, from the act of making, using, offering for sale, selling or importing his invention.

To induce an inventor to disclose his invention to the society, the patent system of a country, in conformity with its public policy objectives, provides a balancing mechanism wherein the public is benefitted from the disclosure and the inventor is benefited from the exclusivity.

Indian Patent system stemmed from the *Act VI of 1856 on Protection of Inventions*, which underwent through several amendments to finally emerge as *The Inventions & Designs Act (Act V of 1888)*. These Acts accorded certain rights of exclusive privileges to the innovators, akin to the Patent Rights. The Act of 1888 was in force for 23 years after which Patents & Designs Act of 1911 (Act II of 1911) came into force. At the time of independence it was felt that the Act of 1911 was not adequate for the development of national industry. Accordingly, on the basis of the recommendations of Patent Enquiry Committee (1948-50) led by Justice Bakshi Tek Chand, amendments were made in the Patents and Designs Act, 1911, first in 1950 (by Act XXXII of 1950) in relation to working of inventions, including compulsory licensing and revocation of patents, and then in 1952, (by Act LXX of 1952) to provide for compulsory license for food and medicines, insecticide, germicide or fungicide, and for the process for producing substance or any invention relating to surgical or curative devices. Subsequently another Committee was constituted for further reforms of the Patents Act under the leadership of Shri Justice N. Rajagopala Ayyangar (1957-59). The Committee under Justice Ayyangar, especially after thoroughly examining the contemporary law of patents governing inventions on chemical substances of different countries, recommended that only process claims be allowed in those fields of inventions. One of the key recommendations of the Committee was that, inventions related to foods and medicines including insecticides and fungicides etc., and the products of chemical reactions, should not be patentable as such and processes for their productions should alone be patentable.

On the basis of these reports, and on the basis of further discourses in different forums, Patents Act 1970 came into force in 1972. The Patents Act 1970 allowed process patents for drugs,

foods and products of chemical reactions but no product patents were allowed for inventions related to such substances. Also differential patent terms were introduced for patents related foods and drugs and for those belonging to other categories.

The last two decades of the past century saw a lot of changes in the field of intellectual property rights in different international forums. A number of treaties like WTO agreement and Trade Related Aspects of Intellectual Property Rights as part of the WTO agreement effective from 01/01/1995 ushered in a paradigm shift in the field of Intellectual Property including Patents. Similarly Convention on Bio-diversity 1992 also required amendments in the Patents Act of the member countries. Still further, Doha Declaration on TRIPs and Public Health 2001, resulting from global public health crisis and agreed within framework of TRIPS, also had a deep influence on the Patents Laws of the countries member to WTO.

India is a member of both WTO and CBD and therefore needed to change its Patent Laws in accordance with these Treaties. Moreover, India joined Paris Convention and Patent Co-operation Treaty in 1998, Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure in 2001. Amendments were also effected in the Act so as to accommodate these international obligations.

Indian Patents Act, 1970 was amended in 1999 with effect from 01/01/1995, in 2002 coming into effect in 2003 and finally in 2005. TRIPs agreement required the introduction of the product patenting in all sectors of technology including Pharmaceuticals. Also a uniform 20 years term for all categories of Patents was yet another important objective of the TRIPs agreement. However, for the introduction of the product patent TRIPs agreement provided a ten years transition period to developing countries like India subject to certain conditions. India introduced the transition provisions in its Act by the amendment of 1999 and finally introduced the product patenting on and from 01.01.2005.

Also as a consequence of CBD India introduced its own Biological Diversity Act, 2002. After amendment suitable interfaces were crafted in Indian Patents Act for the sustainable and equitable utilization of genetic resources of India.

## **1.2 Importance of patent examination**

The Patent system, as suggested before, creates a exclusivity for a limited period to the owner of an invention. Such exclusivity, at a first glance, may appear to restrict competitiveness in the market. But the market loss, from this the barrier created by this exclusivity, is compensated by the entry of new technologies in the market accompanying therewith potential for further

growth of industry. However, this dynamics may be seriously impaired by the bad patents granted to an undeserving invention. It is therefore obligatory that the exclusivity in the form of patent is granted to only such inventions which meet the criteria laid down under the Patents Act. Patents Act therefore, stipulates different benchmarks which need to be satisfied for an invention to become eligible for grant. For instance, Patents Act require that only those inventions should be allowed for grant which fulfil the criteria of novelty, inventive step, industrial applicability and other conditions for patentability. In addition to that sufficiency of disclosure and support of the claims are extremely important parameters for the grant of the patent. Different filtering mechanisms are available in the Act so as to allow an invention to be patented and be maintained for its prescribed terms.

The examination of a patent application by the Examiner and then subsequent processing by the Controller constitute one such filtering mechanism. In the Patent Office the invention as described in the specification is subjected to a comprehensive search in different databases to find out the appropriate prior arts for ascertaining novelty and inventiveness of an alleged invention during the process of examination as per provisions of the Act and Rules.

Even though checks and balances in the form of pre- and post- grant oppositions, revocations or counter revocations in infringement suits are available, the examination system acts as a primary gate keeper of the patent system.

### **1.3 Necessity of the guidelines**

In the post-globalized regime, Indian Patent Office has a major responsibility of protecting inventions by following the due process under the Act so as to promote the industrial development of this country. The provisions of the Act are required to be administered in a transparent, uniform and consistent manner. Over the past few years this office published the Manual of Patent Office Practice and Procedure and guidelines for examining inventions relating to Traditional Knowledge, Biotechnology and Pharmaceuticals. A need is felt that Patent Office should now publish a comprehensive search and examination guidelines which will encompass all areas of technology as well as will reflect the office practice so as to achieve greater transparency in its working procedure.

### **1.4 Scope of these guidelines**

In the different chapters of these guidelines different ingredients for search and examination have been discussed in details. In the second chapter of the Guidelines, the processing of

applications has been described in brief. The processing so explained comprises of steps of application Filing, screening and classification, publication, request for examination etc..

The third chapter covers an Overview of Patent Examination vis-à-vis Mandate of law comprising scope of examination i.e. different components of formal, substantive examination. This chapter then describes patentability criterion novelty, inventive step, and industrial applicability. For a better understanding, the concepts underlying the patentability criteria have been clarified with reference to the specific examples.

Classifying a Patent application as per international patent classification is yet another important point which is needed for combining with other important key words while searching the prior arts. The fourth chapter deals with subject of classification of inventions along with suitable examples for proper classifications as per International Patent Classifications. Importance and necessity of classification has been discussed in this chapter for a better understanding of the concept underlying classification.

In the fifth chapter the Searching prior arts for determining novelty and inventive step has been described in details with specific reference to search strategy, databases, methodology, recording, reporting etc. Also, examples have been cited to explain the search strategies.

Sixth chapter covers details of Examination standards, detailed examination standard objections. In the subsequent chapters, Amendments (types, before/ after grant, allowability, clerical error etc.), Pre-grant disposal procedure, Examination Report writing methodology, Abandoning, refusal and grant procedure, Disposal of post grant opposition, Disposal of post grant amendments.

In the annexures table showing the time provided under the Patents Act and Rules and official notification with regard to Atomic Energy have been appended.

## **1.5 Disclaimer**

Let it be noted that the object of these guidelines is to assist the Examiners and Controllers in their day-to-day duty. These guidelines therefore should not be construed as an act of rulemaking, rather in case of any conflict between these guidelines and the Act and Rules the Act and Rules will prevail.

## Chapter 2

### **Patent application processing flow- a brief**

#### **2.1 Application Filing - Initial processing**

- ✚ On receipt of an application, the Office accords a date and serial number to it. PCT national phase Applications and non-PCT Applications are identified by separate serial numbers.
- ✚ All applications and other documents are digitized, verified, screened, classified and uploaded to the internal server of the Office.
- ✚ Patent applications and other documents are arranged in a file wrapper and the Bibliographic sheet is prepared and pasted on the file cover, so that the files move on for storing in the compactors.

#### **2.2 Screening and classification**

- ✚ The Application is screened for:
  - International Patent Classification.
  - Technical field of invention for allocation to an examiner in the respective field.
  - Relevance to defence or atomic energy.
  - Correcting/completing the abstract, if required. If found not proper, the abstract will be recast suitably, so as to provide better information to third parties. However, such amendments should not result in a change in the nature of invention.
- ✚ Requests for examination are also accorded a unique serial number.

#### **Scrutiny of application**

- ✚ The Office checks whether the Application has been filed in appropriate jurisdiction. If the jurisdiction is not appropriate, the application shall not be taken on record and the applicant is informed accordingly.
- ✚ The Office checks for proof of right to file the application. If the proof of right is not filed along with the application, it shall be filed within a period of six months from the date of filing of the application. Otherwise, the applicant shall file the same along with a petition under Rule 137/138.
- ✚ The Office checks whether the application and other documents have been filed in the prescribed format i.e. prescribed forms, request, petitions, assignment deeds, translation etc. Further, the Office checks whether:



- the documents are prepared on a proper sized paper, typed in appropriate font with proper spacing,
- the documents are duly signed.
- abstract, drawings (if any) have been filed in proper format,
- meaningful Claim(s) are present in a complete Specification,
- Power of Attorney or attested copy of General Power of Attorney (if any) is filed,
- Form-5 has been filed(along with complete after Provisional or for filing PCT-NP/ Convention Application),
- the invention has been assigned to another person and Form 6 has been duly filed. If the right is assigned from an individual to a legal entity, the legal entity is invited to pay the balance fees.

#### **Secrecy Directions and consequences thereof**

- ✚ If in the opinion of the Controller an invention pertains to a subject matter relevant for the purpose of defence as notified by the Central Government, the Controller issues a direction prohibiting the publication of the application to the applicant and refers the matter to the Central Government for their consideration as to whether the application is prejudicial to the defence of India.
- ✚ The Central Government, after considering the merits of the secrecy direction, may give notice to the Controller as to whether the secrecy direction needs to be continued or not. Accordingly the controller shall notify the applicant.
- ✚ The Central Government reviews the matter at an interval of six months. The applicant may request for a reconsideration of the secrecy direction and if the same is found reasonable by the Controller, he may request the Central Government for a review.
- ✚ If the Central Government is of the opinion that an invention in respect of which the Controller has not imposed a secrecy direction and is relevant for defence purposes, it may at any time before the grant of the patent notify the Controller to that effect. Thereupon, the Controller invokes the provisions of Section 35(1).
- ✚ So long as any directions under Section 35 are in force, the Controller shall not take a decision on grant/refusal of the application.

#### **Inventions relating to Atomic Energy**

- ✚ No Patent is granted in respect of an invention relating to atomic energy falling within sub-section (1) of Section 20 of the Atomic Energy Act, 1962.

- ⊖ According to Section 20(1) of Atomic Energy Act 1962, atomic energy means energy released from atomic nuclei as a result of any process including the fission and fusion processes. Under this Act, "prescribed substances" means any substance including any mineral which the Central Government may, by notification, prescribe, being a substance which in its opinion is or may be used for the production or use of atomic energy or research into matters connected therewith and includes uranium, plutonium, thorium, beryllium, deuterium or any of these respective derivative or compounds or any other materials containing any of the aforesaid substances.
- ✚ Any person desiring to apply for a patent abroad for an invention relating to or which he has reason to believe relates to atomic energy shall obtain prior permission from the Central Government before making the application or causing the application to be made abroad unless three months (section 20(5) of Atomic Energy Act) have elapsed since his request for permission was made to the Central Government and no reply was received by him.
- ✚ Upon screening, if an Application is found to be falling within the purview of the Atomic Energy Act, the Controller refers the Application to the Central Government (Department of Atomic Energy).
- ✚ The Central Government upon consideration may issue a direction to the Controller, which is binding.
- ✚ The opinion of the Central Government is not open to an appeal.
- ✚ The official notification in this regard is annexed as Annexure-II.

### **Withdrawal of patent application**

The applicant may, at any time after filing the application but before the grant of a patent, withdraw the application by making a request in writing and by paying the prescribed fee.

However, if the applicant makes a request for withdrawal under section 11(B)(4) within 15 months from the date of filing or priority of the application, whichever is earlier, the application will not be published in accordance with 11A(3)(c).

## **2.3 Publication**

### **Early Publication:**

A patent application can be published at any time prior to 18 months from its date of priority or from the date of filing if requested on Form-9 by the applicant [Section 11A(2) & Rule 24A]. The application is ordinarily published within a month of such request. The early

publication helps the applicant to make his invention public at an early date and thereby availing the privileges and rights as available for published applications from the same date. Form-9 is accepted on due validation with the original patent application documents.

**Publication u/s 11A:**

Every other patent application is published after expiry of 18 months from the date of application or from the date of priority whichever is earlier.

**Effect of Publication:**

The effect of publication is that the documents such as complete specification along with provisional specification if any, drawings and abstract are laid open to public. This publication includes particular of the date of the application, number of application, name and address of the applicant, identifying the application and an abstract. Further on and from the date of publication of the application for patent and until the date of grant of a patent in respect of such application, the applicant shall have the like privileges and rights as if a patent for the invention had been granted on the date of publication of the application.

## **2.4 Request for examination**

The Patents Act, 1970 provides for examination of patent application only on filing of request for examination by the applicant or any other interested person [section 11 B]. This request can be filed on Form-18 with prescribed fee at any time within 48 months from the date of priority or from the date of filing of the application, whichever is earlier. The patent application is referred to the examiner strictly in order of the requests filed. The examiner to whom the application is referred for examination has to submit his report to the Controller ordinarily within a period of one month from such reference but not exceeding three months from such reference [Rule 24B (2)].

**Allocation of application to examiner for examination:**

Once the request for examination is received and the application has been published, the Controller shall refer the particular application to an examiner for conducting examination and search in accordance with section 12 and 13 of the Patents Act, 1970. Before such reference the controller has to take the following points into consideration.

**In order of filing of request:** Reference of patent application shall be strictly in accordance with the sequential order of filing of the request for examination.

## Chapter 3

### Overview of Examination of Patent application

#### 3.1 Mandate of law

The examination of patent application is conducted in accordance with the provisions of section 12<sup>1</sup> of the Patents Act, 1970. After the patent application is filed and subsequent to the filing of the request for examination as well as the publication of the same, the Controller shall refer the application and the specification and other documents related thereto to an examiner for making a report to him in accordance with the provisions of the Act and the rules made thereunder.

The search needs to be conducted in accordance with section 13<sup>2</sup> of the patents Act, 1970. However, it is evident that section 12(1) [(a) to (d)] mandate applicability of the entire Patent Act and the Rules made thereunder for the purpose of examination of the patent application. The examiner has to submit the report of such examination to the Controller on the matters specified under therein accordingly.

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<sup>1</sup> Examination of application

(1) When a request for examination has been made in respect of an application for a patent in the prescribed manner under sub-section (1) or sub-section (3) of section 11B, the application and specification and other documents related thereto shall be referred at the earliest by the Controller to an examiner for making a report to him in respect of the following matters, namely:—

(a) whether the application and the specification and other documents relating thereto are in accordance with the requirements of this Act and of any rules made thereunder;

(b) whether there is any lawful ground of objection to the grant of the patent under this Act in pursuance of the application;

(c) the result of investigations made under section 13; an

(d) any other matter which may be prescribed.

(2) The examiner to whom the application and the specification and other documents relating thereto are referred under sub-section (1) shall ordinarily make the report to the Controller within such period as may be prescribed.

<sup>2</sup> Section 13

Search for anticipation by previous publication and by prior claim.

(1) The examiner to whom an application for a patent is referred under section 12 shall make investigation for the purpose of ascertaining whether the invention so far as claimed in any claim of the complete specification—

(a) has been anticipated by publication before the date of filing of the applicant's complete specification in any specification filed in pursuance of an application for a patent made in India and dated on or after the 1st day of January, 1912;

(b) is claimed in any claim of any other complete specification published on or after the date of filing of the applicant's complete specification, being a specification filed in pursuance of an application for a patent made in India and dated before or claiming the priority date earlier than that date.

(2) The examiner shall, in addition, make such investigation for the purpose of ascertaining whether the invention, so far as claimed in any claim of the complete specification, has been anticipated by publication in India or elsewhere in any document other than those mentioned in sub-section (1) before the date of filing of the applicant's complete specification.

(3) Where a complete specification is amended under the provisions of this Act before the grant of patent, the amended specification shall be examined and investigated in like manner as the original specification.

(4) The examination and investigations required under section 12 and this section shall not be deemed in any way to warrant the validity of any patent, and no liability shall be incurred by the Central Government or any officer thereof by reason of, or in connection with, any such examination or investigation or any report or other proceedings consequent thereon.

### 3.2 Formal examination

The patent examination can broadly be classified in two distinct forms, the formality examination and the substantive examination.

The following steps are involved in the formal examination of patent applications

- ✚ To check whether the application, specification and other related documents are filed in duplicate in prescribed forms or not.
- ✚ To check whether the applicant is entitled to apply for patent under section 6 of the Act.
- ✚ To check the jurisdiction of the applicant as specified under Rule 4(1)(i) of the Patents Rules to decide the Appropriate Office for processing of patent application. Jurisdiction is normally decided on the normal residential or domiciled address or place of business of the applicant or of the FIRST MENTIONED APPLICANT, in case of joint applicants or the place from where the invention actually originated
- ✚ To check the jurisdiction of the applicant who has no place of business or domicile in India. The address for service in India, as given by the applicant, is to be taken into consideration for deciding the Appropriate Office.
- ✚ To check whether the address for service has been provided in the application. If not, the Controller has no obligation to proceed further (Controller may take suo moto decision in the matter) (Rule 5 ) To check whether any request has been made for post-dating of the provisional specification. Post-dating is allowed for a maximum period of 6 months (Sec – 17(1)).
- ✚ To check whether the complete specification is filed within 12 months from the date of filing of provisional specification as specified in section 9(1) of the Act. The 12-month period for filing the complete specification after provisional specification is not extendable.
- ✚ To check whether the complete specification is filed within 12 months from the earliest provisional specification when the same applicant has filed more than one provisional specifications in respect of inventions which are cognate or of which one is modification of the another and the whole of such inventions are such as to constitute a single invention (Sec – 9(2)).
- ✚ To check whether the complete specification is filed within 12 months from the earlier complete specification filed which was treated as provisional specification under the provisions of section 9 (3) of the Act.

- ✚ *It is to be noted that there is no provision for filing provisional specification or making a request to convert the complete specification to provisional specification in respect of the applications filed under convention and national phase entry via PCT system.*
- ✚ To check whether a Power of Attorney or a General Power of Attorney in original has been filed and whether the patent agent is authorized to practice before the patent office on behalf of the applicant(s). Self-attested photocopy of a General Power of Attorney is also admissible provided, an indication to the earlier patent application with which the original GPA is attached , has been submitted.
- ✚ To check whether Declaration as to Inventorship (Form –5) has been filed along with the complete specification filed after filing provisional specification or along with the complete specification filed under convention application or along with the complete specification filed as PCTNP application under PCT route, as the case may be.
- ✚ To check whether Proof of Right to make an application has been filed as specified in Section 7(2) of the Patents Act along with the application (even at the time of filing provisional application) except in the cases where the inventor(s) is(are) applicant(s) by himself (themselves).
- ✚ To check whether Form - 3 has been filed along with the patent application or within a period as specified under section 8 of the Patents Act.
- ✚ To check whether the application has been published under the provisions of Section 11 A
- ✚ If the application is published before the period of 18 months from the date of filing the application, a check has to be made whether the request in Form – 9 has been filed for early publication, along with the requisite fee and , whether the application has been published after taking Form – 9 on record.
- ✚ To make cross reference(s), if any, on the file covers of co-pending applications (cognate type, divisional and parent applications) The related applications shall be sent together physically to examiners
- ✚ A check is to be made whether the request for examination (Form- 18) has been filed along with the requisite fee and by whom it was filed. If form 18 has been filed by a person other than the applicant it is to be examined whether that person is the ‘person interested’ as defined in Section 2(1)(t) of the Patents Act.
- ✚ It also needs to be checked as to how many priorities are claimed and whether the requisite fee has been paid or not

### **3.2.1 Timelines of filing documents and RQs, Forms and fee, right to file, priority rights etc.**

The time line as provided in the Act and Rules has been suitably incorporated in Annexure-I.

## **3.3 Substantive examination**

The examiners to whom the application is referred to under section 12 conducts examination of the patent application together with the complete specification and the other documents related there with for making report in respect of matters as mentioned in section 12(1)[(a) to (d)] to the Controller. The examiner ascertains whether any lawful ground of objections exists to the grant of patent under the statute.

### **3.3.1 Understanding the invention**

The Complete Specification describing the invention is a techno-legal document. It should fully and particularly describe the invention and the method by which it is to be performed i.e. the description of the method or the instructions for the working of the invention as contained in the complete specification are by themselves sufficient, full and particular to enable a person in India possessing average skill in, and average knowledge of, the art to which the invention relates, to work the invention. It is also essential that the best method for performing the invention, which is known to the applicant is disclosed in the Complete Specification [S. (10) (4)].

If the applicant mentions biological material in the invention and it is not possible to describe the same in the complete specification in the manner described in clauses (a) and (b) of section 10(4), and if such material is not available to public, the requirement of sufficiency of disclosure shall be completed by depositing such material in an International Depository Authority under the Budapest Treaty. The same shall be deposited not later than the date of filing, however, the reference number to the deposit shall be made in the specification within 3 months from the date of filing the application.

The complete specification shall contain the details of such deposition and the source and geographical origin of the biological material.

The technical advance, synergistic effect and efficacy of the claimed invention must be substantiated properly in the body of specification as well as by way of suitable examples.

### **3.3.2 Sufficiency of disclosure:**

In *Press Metal Corporation Limited V. Noshir Sorabji Pochkhanawalla* (1982 PTC 259 (Bom)), it was held that – “It is the duty of a patentee to state clearly and distinctly the nature and limits of what he claims. If the language used by the patentee is obscure and ambiguous, no patent can be granted, and it is immaterial whether the obscurity in the language is due to design or carelessness or want of skill. It is undoubtedly true that the language used in describing an invention would depend upon the class of person versed in the art and who intend to act upon the specifications. In the present case, the invention is described in an obscure and ambiguous language, and on this ground, the patent is liable to be refused”.

Also the applicant is required to disclose the source and geographical origin of such materials as used in the invention, subject to provisions of section 10(4). For details please refer to the guidelines on biotech and Traditional Knowledge.

The description should not contain passages which confuse the scope of the invention.

Where particular description or drawings do not exemplify the invention claimed, for example, where they are included by way of explaining the invention or for comparison or where they relate to prior art, the description should make this clear.

#### **Technical or Specialized Terms**

The description should be as clear and straightforward as possible, with the avoidance of unnecessary technical jargon. Since it is addressed to persons skilled in the art, it will be desirable that for its use by him the technical terms which are well known in that art should be used. Little known or specially formulated technical terms may be used provided they are adequately defined and that there is no generally recognised equivalent.

Foreign terms may be used only where there is no English equivalent.



Terms already having an established meaning should not be used differently, if this is likely to cause confusion. But in some circumstances it may be appropriate for a term to be borrowed from an analogous art.

The use of proper names or similar words to refer to materials or articles is undesirable in so far as such words merely denote origin, or where they may relate to a range of different products. The product should be sufficiently identified, without reliance on the word, to enable the invention to be carried out by the skilled person. Such words which have generally accepted meanings as standard descriptive terms may however be used without further explanation; examples are Bowden cable, Belleville washer, zip fastener.

A trade name or mark should not be used in a specification since it is an indication of origin rather than of composition or content and on that account cannot properly be used to describe an article. If a registered trade mark is used it should generally be accompanied by wording showing that it is a trade mark, since its use as a descriptive term without acknowledgement may be prejudicial to the rights of its owner.

### **3.3.3 Understanding the scope of claims**

Claims are considered to be the most important part of the patent document. In a complete specification the description is followed by the Statement of Claims which define the boundary of the protection intended to by the applicant. Since the claims constitute the legal part for claiming the protection of the patent rights, it is imperative that the claims should be examined thoroughly to ensure that they are limited to the features which constitute the invention. It is expected that the claims are drafted to cover all the aspects of the protection being sought.

The following points may be observed while examining the claims:

(a) A claim is the statement of technical facts expressed in legal terms defining the scope of the invention sought to be protected. Claims define the boundaries of legal protection sought by the patentee and form a protective fence around the invention which is defined by the words and phrases in the claims. What is not claimed in the 'claims' stands disclaimed, and falls open to the public domain, even if the matter is disclosed in the description.

(b) Each claim should be in a single sentence and should be clearly worded

(c) Claim(s) should be clear, succinct and should not involve unnecessary repetition and claim (s) should not be verbose.

(d) Each claim is evaluated on its own merit and, therefore, if one of the claims is objected, it does not mean that the rest of the claims are invalid. It is therefore important to make claims on all of the invention to ensure that the applicant gets the widest possible protection.

**Scope of Claims:**

As the value of a patent depends largely upon the scope of the claims, special care is necessary to ensure that the claims are not allowed to include either more or less than what the applicant desires to protect by his patent and must be fairly based on the matter disclosed in the specification. Therefore, claims must not be too extensive so as to embrace more than what the applicant has disclosed in the complete specification. A claim, which is too wide, may encroach upon the subject matter, which may be in public domain or belong to others.

Passages which confuse the scope of the invention or claims that are unspecific (e.g. those claiming “Any novel matter...” ) is prejudicial to clarity of claims.

A claim shall be for the protection of either a product or process or apparatus or all of them, as the case may be, and shall be in one sentence according to the standard practice.

**Attributes of claims:**

a. The description of invention in the complete specification is to be followed by a “statement of claims” preceded by the prescribed preamble, “I or we claim” as the case may be.

b. Claims should start from a fresh page after full description of the invention with the claims serially numbered.

c. There is no restriction to the number of claims to be incorporated in the specification. But the applicant has to pay additional fee, if there are more than ten claims. (See the First Schedule)

d. A claim (s) of a complete specification shall relate to a single invention, or to a group of inventions linked so as to form a single inventive concept and, shall be clear and succinct and fairly based on the matter disclosed in the specification (section 10 (5)).

e. A claim must be clear, complete and fully supported by description. A claim must be clear in the sense that it should not cause the reader to speculate about the scope of the claim. For example, if the words like “thin”, “strong”, “a major part”, “such as”,

“when required” or “any” are used, then it forces the reader to make a subjective judgment and not an objective observation, unless such expression follows any definite values.

f. A claim must be specific and not vague, ambiguous, speculative or hypothetical in nature. Each claim should be complete so that it covers the inventive feature and enough elements around it to put the invention in the proper context.

g. Trade marks / Trade names are not permitted in claims.

### **Structure of Claims**

a) A claim usually consists of three parts:

- Introductory phrase,
- Body of the claim, and
- Link that joins the two segments.

b) The introductory phrase identifies the category of the invention and sometimes the purpose (For example, a machine for waxing paper, a composition for fertilizing soil).

c) The body of the claim is the specific legal description of the exact invention, which is sought to be protected.

d) The linking consists of words and phrases such as:

- Which comprises
- Including
- Consisting of
- Consisting essentially of

*For Example: In the following example, “A data input device” is the introductory phrase, “comprising” is the linking word, and the rest of the claim is the body. “A data input device comprising; an input surface adapted to be locally exposed to a pressure or pressure force, a sensor means disposed below the input surface for detecting the position of the pressure or pressure force on the input surface and for outputting an output signal representing said position and; an evaluating means for evaluating the output signal of the sensor means.”*

e) If the invention is an improvement to an existing product, the claims should set the boundary very clearly by characterizing the invention with respect to the prior art. In those cases, the claim will have two parts separated by the word ‘characterized by’ or ‘wherein’. The part coming before ‘characterized by’ is the prior art while that comes

after will be the features of the invention. It is equally applicable in the case of a process which is modification of the existing process. f) Structure of Claims should be on the following lines:

i) Independent Claim: This is the first claim which is also called the 'Principal Claim' should clearly define the essential novel features of the most preferred embodiment of the process, apparatus, device or the product that constitutes the invention and should be properly characterized with respect to the 'prior art', defining all the technical features essential to the invention or inventive concept. This should include the core integers as well as sufficient details of interrelationship, operation or utility to establish that the invention achieves the intended objectives and

ii) Dependent Claim(s): Dependent claims should be clubbed with the independent claims (or within themselves) to include all the features of the independent claim with additional non-essential features and even the minute aspects and optional features.

iii) Further independent claims are only justified where the inventive concept covers more than one category, e.g. apparatus, process, product, complementary versions within one category constituting unity of invention, e.g. plug and socket, transmitter and receiver, which work only together. Therefore, wherever possible, claims should not contain:--

- Multiple unrelated inventions
- Dependent claims that are not fully limited by the terms of the preceding independent claim, e.g. dependent claims which omit or substitute a feature of an independent claim.

Certain statements are not to be regarded as claims :

i) The statements of the following form given are not to be regarded as claims, in as much as, they do not define the invention:-

a) I claim to be the inventor of this appliance,

b) I claim a patent and that no one else shall use my invention without leave.

c) I claim that the machine described above is quite new and has never been seen or used before.

d) I claim some reward.

ii) Also, the claims should not be made, as in the examples given below, for illustrating the efficiency or advantages of the invention:-

- a) I claim that this device is better and cheaper and more effectual than anything known.
  - b) I claim that my process or machine will do such and such things.
  - c) I claim the following advantages.
  - d) I claim an improved sewing machine.
  - e) I claim a mechanism for converting heat into electrical energy without any loss of efficiency.
  - f) I claim a new method of making silk waterproof.
- iii) Where products are claimed, the invention will not be properly defined if merely the properties of the products are referred to, as in the following example:-  
 “I claim a lubricating oil which is of specific gravity.... and boiling point.”
- iv) The claims, such as “I claim an improved sewing machine as described or as illustrated ” or “ I claim the invention described in the specification”, which merely refer back to the description are not sufficiently definitive.

#### **3.3.4 Single inventive concept**

Section 10(5) mandates that the claim/ claims of the complete specification shall relate to a single invention, or to a group of inventions linked so as to form a single inventive concept. The MANUAL OF PATENT OFFICE PRACTICE AND PROCEDURE, at 05.03.16 allows that there may be more than one independent claim in a single application if the claims fall under a single inventive concept. In the Manual, it has been advised “While there is no restriction as to the number of claims, including independent claims, it is advisable to limit the number of claims, as well as the number of independent claims in a single application so that the claims are linked so as to form a single inventive concept. If claims relate to a plurality of distinct inventions, it may be objected on ground of lack of unity of invention”.

In other words when there is a group of inventions in a specification they should be linked by a single concept which is inventive or there should be a technical relationship among the claimed inventions, which makes the inventive contribution over the prior art. To fulfil the requirement of unity of invention each claim of a complete specification should share a single common technical relationship which is inventive. The single common technical relationship which is inventive is called the “special technical feature”. This determination should be done on the content of the claims supported by the description in the light of the prior art.

Unity of invention is present only when there is a “technical relationship” among the claimed inventions involving one or more of the same or corresponding “special technical features.” The expression “special technical features” means those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art. The determination whether a group of inventions is so linked as to form a single inventive concept is made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim.

Lack of unity may be evident in an application in the following ways:

‘A priori’, i.e., before consideration of prior art, if the claims falling in different groups do not share a same or corresponding technical feature.

‘A posteriori’, i.e., after a search of the prior art, if the shared technical feature fails to make a inventive contribution over the prior art.

Lack of unity of invention may be directly evident “a priori,” that is, before considering the claims in relation to any prior art, or may only become apparent “a posteriori,” that is, after taking the prior art into consideration.

For example, independent claims to A + X, A + Y, X + Y can be said to lack unity a priori as there is no subject matter common to all claims. In the case of independent claims to A + X and A + Y, unity of invention is present a priori as A is common to both claims. However, if it can be established that A is known, there is lack of unity a posteriori, since A (be it a single feature or a group of features) is not a technical feature that defines a contribution over the prior art.

### Examples

A single inventive concept may be recognized between independent claims of different categories as in the following examples:

(a) a claim for a product and claim for a process specially adapted for manufacture of the product;

(b) a claim for a process and claim for an apparatus or means specifically designed for carrying out the process;

(c) a claim for a product, claim for a process specially adapted for manufacture of the product and claim for an apparatus or means specifically designed for carrying out the process. However, the above criteria cannot be generalized and there may be occasions where all such claims may not be allowed in a single application based on the circumstances of the case

(d) Unity between product and process claims requires that the process inherently results in the product when the novel product is obtained by the claimed process.

(e) Unity between process and apparatus or means requires that the apparatus or means have been specifically designed for carrying the process, or at least a step of the process, but without excluding any other possible use.

In the above examples product is considered as the special technical feature however if it is not novel, inventive over the prior art the product, process and apparatus cannot coexist in a single patent application, failing the Single inventive criterion.

(f) Single inventive concept is permitted if the invention cannot readily be covered by a single generic claim.

### **3.4 Patentability criterion novelty, inventive step, industrial applicability**

#### **3.4.1 Novelty of Invention**

##### **General Principle:**

An invention is considered new (novel) if it has not been anticipated by publication in any document anywhere in the world, or prior claimed in an application for patent in India, or form part of the knowledge, oral or otherwise, available within any local or indigenous community in India or elsewhere, or used; before the date of filing of patent application or date of priority, whichever is earlier, that is, the subject matter has not fallen in the public domain or that it does not form part of the state of the art. Followings are the general principles relating assessment of Novelty:

- a) An invention is considered as new if it is not anticipated by prior publication, prior use or prior public knowledge. An invention is new (novel) if it has not been disclosed in the prior art, where the prior art means everything that has been published, presented or otherwise disclosed to the public before the date of filing of complete specification.
- b) For the purpose of determining novelty, an application for Patent filed at the Indian Patent Office before the date of filing of complete specification of a later filed application but published after the same is considered for the purposes of prior claiming.
- c) While ascertaining novelty, the Examiner takes into consideration, inter alia, the following documents:

- ✚ which have been published before the date of filing of complete specification.
  - ✚ such Indian Patent Applications which have been filed before the date of filing of complete specification and published on or after the date of filing of the complete specification, but claims the same subject matter.
  - ✚ also the Examiner may consider such documents which have been published before in a transaction of a learned society or exhibited before in an authorized manner as designated by the Government within one year from the date of such filing.
- d) A prior art will be considered as anticipatory if all the features of the invention under examination are present in the cited prior art.
- e) The prior art should disclose the invention either in explicit or implicit manner.
- f) Mosaicing of prior art documents is not followed in the determination of novelty.
- g) A generic disclosure in the prior art may not necessarily take away the novelty of a specific disclosure.
- h) A specific disclosure in the prior art takes away the novelty of a generic disclosure.
- i) In a case where a prior art is cited as an anticipation in the Examination Report, which is not deemed to be an anticipation by reason on Section 29-34, the onus of proving is on the applicant.

### **Determination of Novelty:**

#### **Concept**

In order to establish the novelty of an invention, search for anticipation by previous publication and by prior claim in relation to the subject matter of the invention for which the patent has been applied for is conducted by the examiner in the patent and non-patent literature to ascertain whether the invention has been anticipated by previous publication and prior claiming. This is a part of office action by the Patent Office towards conducting examination of patent applications.

An invention defined in a claim lacks novelty if the specified combination of features has already been anticipated in a previous disclosure.



In order to demonstrate lack of novelty, the anticipatory disclosure must be entirely contained within a single document either explicitly or implicitly. If more than one document is cited, each must stand on its own, or the documents so cited are linked in such a manner so that they form a continuous document. The cumulative effect of the disclosures cannot be taken into consideration nor can the lack of novelty be established by forming a mosaic of elements taken from several documents. This may be done only when arguing obviousness.

In OA/8/2009/PT/CH [250/2012] IPAB held - "to defeat novelty, the appellant should show that an earlier document, disclosed all that the patentee is seeking to patent. And that each limitation of the claimed invention is found in a single prior art reference. The appellant has not done this. So the attack on novelty is rejected."

In the matter of Graf & CIE AG and Maschinenfabrik Rieter Ag v. Nitto Shoji Limited during pre-grant opposition proceedings of Application No. 422/Cal/2000 under section 25(1), the Controller held, "...a prior art drawing may be taken into consideration as a prior art disclosure if it discloses the essential features of the impugned claim in a sufficiently and clearly understandable manner to a skilled person and also if the drawing is such that it provides an enabling disclosure either explicitly or implicitly."

A matter is considered as part of the state of the art on the date if it first becomes available to the public, wherever in the world that may be, and in whatever manner or language the disclosure is made. There is no limit on the age of the disclosure.

Different claims may have different priority dates and the documents should be cited accordingly.

Any document is regarded as having been published, and thus forming part of the state of the art, if it can be inspected as of right by the public, whether on payment of a fee or not; this includes, for example, the contents of the 'open' part of the file of a patent application once the application has been published.

Prior publication does not however depend on the degree of dissemination. The communication to a single member of the public without any obligation of secrecy cast upon him amounts to making the communication available to the public.

If a claim specifies alternatives or defines the invention by reference to a range of values (e.g. of composition, temperature, etc), then the invention is not new if one of these

alternatives, or if a single example falling within this range, is already known. Thus, a specific example is sufficient to destroy the novelty of a claim to the same thing defined generically. For example, disclosure of a metal coil spring anticipates a claim to resilient means. On the other hand, a generic disclosure does not impugn the novelty of a more specific claim, so that an earlier reference to a metal coil spring cannot be used to attack the novelty of a claim specifying such a spring made of copper. In some cases, however, the disclosure of a comparatively small and restricted field of possible alternatives might properly be held to be a disclosure of each and every member; for example, 'fluid' may be taken to disclose both liquid and gas, if the context warrants it, and a reference to an electric motor may be regarded as disclosing the use of both series and shunt-wound types.

An invention relating to preventing knocking signals in which the metering system in an engine is designed to meter the quantity of the air-fuel mixture to be supplied depending on the signal indicating which fuel is currently in operation is anticipated by a document in which suction air quantity is restricted by making the upper value of throttle valve opening to accelerator automatically smaller when it is so judged that knocking is in such a condition as liable to occur in case of using low octane rating fuel or the like.

### **Illustrative Cases**

1. An invention relating to preventing knocking signals in which the metering system in an engine is designed to meter the quantity of the air-fuel mixture to be supplied depending on the signal indicating which fuel is currently in operation wherein the metering system is designed to reduce injection of fresh air by a butterfly valve located in the fresh air supply line *or* secondary pressure of a charger *or* compressor located in the fresh air supply line is anticipated by a document in which suction air quantity is restricted by making the upper value of a throttle valve opening to accelerator automatically smaller when it is so judged that knocking is in such a condition as liable to occur in case of using low octane rating fuel or the like.
2. An invention relating to a trailing arm with anti-roll bar suspension system for transferring lesser shocking forces to the chassis to improve the comfort of passenger and rider by having forward portions secured to brackets at first pivotal connections by threaded fasteners and antiroll bar consisting of tubes and reinforcement tubes welded to the trailing arm is anticipated by a document in which forward portion is pivotally supported by the frame and secured to brackets at first pivotal connections

by threaded fasteners & also disclosing an antiroll bar consisting of tubes and reinforcement tubes welded to trailing arm through antiroll bar support plate.

3. In the matter of M/s. Crompton Greaves Ltd. Mumbai v. M/s. Bharat Heavy Electricals Ltd. Hyderabad, on patent application No.221/BOM/96 (184657), it was held by the Controller that the ground that the invention was publicly known or publicly used in India was not established by the opponent since the photo copies submitted by the opponent stated mainly the terms and conditions of a contract to supply 3900 KVA and 5400 KVA traction transformers. The photocopies of work order did not define any constructional features of the traction transformer. A mere statement by the opponent company that they are the first in the field of manufacturing alone cannot stop the applicant company from obtaining a patent unless the opponents establish that they were manufacturing an identical product before the date of filing.
4. In the case of Monsanto company v. Coramandal Indag Products (P) Ltd. (1986) (1 SCC 642: AIR 1986 712: 1986 PTC 195 SC) it was held that the invention was publicly known since its formula was published in the report of the International Rice Research Institute in the year 1968 and its common name Butachlor was published in the same report in the year 1969.
5. If the prior publication is contained in a document, it may not be necessary that members of the public should have actually read the document. It is enough if the document is accessible to the public without much trouble (Lallubhai Chakubhai v. Chimanlal Chunilal & Co. A.I.R. 1936 Bom. 99).
6. An invention is deemed to be made publicly known if a document containing an adequate description of it, whether issued as a general publication or not, has in the course of ordinary business and without imposing any secrecy, reached an appreciable section of the public interested in the art to which the invention relates (Decision of the Controller (1938) Re. Patent Application No. 23077).

#### **All limitations to be taught**

1. The specification which is relied upon as an anticipation of the invention should convey the same knowledge as the specification of the invention itself. (Pope Alliance Corp. v. Spanish River Pulp & Paper Mills Ltd., A..I.R. 1929 P.C. 38).

2. A document is not considered as a proper anticipation unless it gives the public the same information as the one presented in the applicant's specification. A mosaic of extracts culled from several documents have not been accepted as constituting a relevant anticipation (Decision of the Controller (1942) Re. Patent Application No. 27709).
3. A 'mosaic' of separate steps, each known in manufacture, is not sufficient to constitute 'anticipation' as to warrant the refusal of grant of a patent, though they may have a bearing upon the question of quantum of ingenuity which arises when a court is called upon to consider whether there is 'subject matter' for a patent in the invention (Decision of the Deputy Controller (1946) Re. Patent Application No. 32384.)
4. In *Pope Alliance Corp. v. Spanish River Pulp & Paper Mills Ltd.*, A.I.R. 1929 P.C. 38, it was held that in order to render a document as a prior publication, it must be shown that it contains all that is material to instruct the public on how to put the invention in practice.
5. As per the decision of the Controller upheld by the Central Government (1944) Re. Patent Application No. 29089 in order to be effective prior knowledge of an invention the prior publication should contain such information as would enable one conversant with the art, to which the invention relates, to perceive the very discovery and to carry it into practical use.

### **Prior Public Use**

Prior public use of the invention before the date of filing of application destroys the novelty of the invention. However, there is an exception to this general rule. The Act provides that if an invention has been publicly worked in India within one year before the priority date by the patentee or applicant for the patent or by any third person from whom he derives the title or by the person who has obtained a consent to work the invention and such working of invention was only for the purpose of reasonable trial and it was necessary to effect such trial or working in public in view of the nature of the invention then such working of invention does not anticipate the invention (Section 32).

### **Illustrative Cases:**

1. In *Lallubhai Chakubhai v. Chimanlal Chunilal & Co.* A.I.R., 1936 Bom. 99, it was held that public user did not mean a user by the public but a user in a public manner. It

was further held that the use of an invention for purposes of trade, whether by the inventor himself or by others, would constitute public user of the invention. It was also held that public sale of articles is strong evidence that the user is commercial and not experimental. But to constitute evidence of public user, the sale must be open and in the ordinary way of business.

2. In patent application No. 23077, the Controller held that an invention should be deemed to be publicly used if in the course of regular business (as distinguished from experimental user), the invention has been used without observing any secrecy about it, in any place to which persons without confidential relationship are allowed access.
3. In *Lallubhai Chakubhai v. Shamaldas Sankalchand A.I.R., 1934. Bom. 407*, it was held that if an article manufactured under a secret process is of such a character that anybody by examining it can find out the secret of that manufacture, then the sale of that article in public would amount to public user of the process. It was also held that secret use of an invention by the inventor himself for experimental purposes or the manufacture of an invention for the inventor by a manufacturer, who is under injunction to keep the invention secret, will not make the patent invalid.
4. In *Monsanto Co. v. Coromandel Indag Products (P) Ltd. 1986 A.I.R. 712*, it was held that “to satisfy the requirement of being publicly known as used in clauses (e) and (f) of section 64(1), it is not necessary that it should widely be used to the knowledge of the consumer public. It is sufficient if it is known to the persons who are engaged in the pursuit of knowledge of the patented product or process either as men of science or men of commerce or consumers.”
5. In patent application No.23077, it was held by the Controller that an invention should be deemed to be made publicly known if a document containing an adequate description of it, whether issued as a general publication or not, had in the course of ordinary business and without imposing any secrecy, reached an appreciable section of the public interested in the art to which the invention relates.
6. In patent application No.29180, it was held by the Controller that disclosure of a document to two or more selected individuals in Government service did not appear to be sufficient to constitute “public knowledge” of the said document.

7. In the case of *Ram Narain Kher v. Ambassador Industries*, (AIR 1976 Del 87.), it was held that at the time the patent is granted to a party it is essential that the party claiming patent should specify what particular features of his device distinguish it from those which had gone before and show the nature of the improvement which is said to constitute the invention. A person claiming a patent has not only to allege the improvement in art in the form but also that the improvement effected a new and very useful addition to the existing state of knowledge. The novelty of the invention has to be succinctly stated in the claim. It is no doubt true that the claim made is addressed to the skilled persons in the art or trade and not to a common man yet there can be no escape from the fact that the novelty of the claim or the advantage derived by the invention has to be succinctly stated in the claim and must not be left to an inference raised on a general review of the specification. It is equally true that even when the invention 'was not itself new', its combination with the other elements of the system producing the advantageous results; would be a sufficient element of novelty to support the patent. It may be only a small step but that may be a step forward and that is all that is necessary so far as the subject-matter is concerned (not under the present heading of prior public use)
8. In patent application No.26209, the Controller held that prior use of machine for profit in private premises amounts to public use within the meaning of section 9(1) (d) of the Patents and Designs Act, 1911, if the machine is worked in the ordinary way and under no conditions of secrecy.
9. In patent application No.27208, it was held that in proving prior use of an invention described in a patent specification it is not enough merely to allege that a "machine similar to the applicant's machine" has been used, without giving a fair description of the machine actually used.
10. In patent application No.31894, it was held that it would be most unfair to refuse a patent to an applicant merely because his rivals alleged that they had used a device "similar to the Applicant's device", if the Controller was not afforded a fair opportunity to judge for himself whether the device alleged to have been used by them is in fact similar to the Applicant's device.
11. In *Bilcare Limited v. Amartara (P) Ltd.* (IA Nos. 10848/2006, 13971/2006 and 11160/2006 in CSOS No.1847/2006 relating to patent No.197823), it was observed,

“whether an alleged invention involves novelty and an inventive step, is a mixed question of law and fact, depending largely on the circumstances of the case. Although no absolute something is missing that is informally applicable in all circumstances can be devised, certain broad criteria can be indicated. Whether the manner of manufacture patented was publicly known, used and practised in the country before or at the date of the patent? If the answer to the question is ‘Yes’, it will negate novelty or ‘subject matter’. Prior public knowledge of the alleged invention which would disqualify the grant of patent can be by word of mouth or by publication through books or other media. If the public once become possessed of an invention, says Hindmarch on Patents, by any means whatsoever, no subsequent patent for it can be granted either to the true or first inventor himself or any other person, for the public cannot be deprived of the right to use the invention... the public already possessing everything that he could give”.

12. The use of an invention for purposes of trade, whether by the inventor himself or by others, may constitute public user of the invention ( Lallubhai Chakubhai v. Chimanlal Chunilal & Co. A.I.R. 1936 Bom. 99).
13. Public sale of an article is strong evidence that the user is commercial and not experimental. But to constitute evidence of public user, the sale must be open and in the ordinary way of business. ( Lallubhai Chakubhai v. Chimanlal Chunilal & Co. A.I.R. 1936 Bom. 99).
14. Invention should be deemed to be publicly used if in the course of regular business (as distinguished from experimental user), the invention has been used without observing any secrecy about it, in any place to which persons without confidential relationship are allowed access [Decision of the Controller (1938) Re. Patent Application No. 23077].

### **Prior Claiming**

*Section 13 - Search for anticipation by previous publication and by prior claim-*

*(1) The examiner to whom an application for a patent is referred under section 12 shall make investigation for the purpose of ascertaining whether the invention so far as claimed in any claim of the complete specification*

... .. (b) is claimed in any claim of any other complete specification published on or after the date of filing of the applicant's complete specification, being a specification filed in pursuance of an application for a patent made in India and dated before or claiming the priority date earlier than that date.

In order to prove prior claiming of the invention, compliance with the following conditions is examined:

- (i) that the application 'X' where the invention has been claimed in a claim prior to the application 'Y' claiming alleged invention, has been filed in India
- (ii) the application 'X' must have been filed or claiming a priority earlier to the priority date of application 'Y' in question
- (iii) the application 'X' should have been published on or after the date of application ('Y') in question.

In the matter of application for patent No. 123140, Centron Industrial Alliance Private Limited v. Harbans Lal Malhotra and Sons Private limited, [DPD, Vol.1, p 133], in the Controller held that the later application (filed on 15th September, 1969) claiming a method of manufacturing superior quality blades of razors and like instruments which consists atomic or molecular deposition in vacuum of a thin film of particles of a corrosion resistant material on the cutting edge or edges of the blades of the said instruments and thereafter coating the said blade with polytetrafluoroethylene. The claimed method is anticipated by prior claiming in an earlier application (filed on 14th March, 1969) claiming a method of manufacturing, superior quality blades of razors and like instruments defined, which included coating the blades with polytetrafluoroethylene, characterized in that the said method consisted of atomic or molecular deposition in vacuum of a thin film of particles of a corrosion resistant material on the cutting edge or edges of the blades of the said instruments before coating the said blades with said polytetrafluoroethylene.

### **3.4.2 INVENTIVE STEP: Concept**

Inventive step is decided in accordance with the provisions of section 2(1)(ja) of the Indian Patents Act, 1970.



As per 2(1)(ja), "inventive step" means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art;

**The Intellectual Property Appellate Board on inventive step and exclusions:**

“When the patentee explains that there is an inventive step which is a technical advance compared to the existing knowledge (state-of the-art) or that it has economic significance that would not give him the right to a patent as such. “The inventive step’ must be a feature which is not an excluded subject itself. Otherwise, the patentee by citing economic significance or technical advance in relation to any of the excluded subjects can insist upon grant of patent thereto. Therefore, this technical advance comparison should be done with the subject matter of invention and it should be found it is not related to any of the excluded subjects.”<sup>3</sup>

**Hon’ble Supreme Court of India on inventive step:**

In *Biswanath Prasad Radhey Shyam vs Hindustan Metal Industries Ltd*<sup>4</sup> it was held that “The expression "does not involve any inventive step" used in Section 26(1) (a) of the Act and its equivalent word "obvious", have acquired special significance in the terminology of Patent Law. The 'obviousness' has to be strictly and objectively judged. For this determination several forms of the question have been suggested. The one suggested by Salmond L. J. in *Rado v. John Tye & Son Ltd.* is apposite. It is: "Whether the alleged discovery lies so much out of the Track of what was known before as not naturally to suggest itself to a person thinking on the subject, it must not be the obvious or natural suggestion of what was previously known."

It was also observed that “Another test of whether a document is a publication which would negative existence of novelty or an "inventive step" is suggested, as under: "Had the document been placed in the hands of a competent craftsman (or engineer as distinguished from a mere artisan), endowed with the common general knowledge at the 'priority date', who was faced with the problem solved by the patentee but without knowledge of the

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3 IPAB yahoo v rediffmail

4 *Biswanath Prasad Radhey Shyam vs Hindustan Metal Industries Ltd* (AIR 1982 SC 1444)

patented invention, would he have said, "this gives me what I want?" (Encyclopaedia Britannica; *ibid*). To put it in another form: "Was it for practical purposes obvious to a skilled worker, in the field concerned, in the state of knowledge existing at the date of the patent to be found in the literature then available to him, that he would or should make the invention the subject of the claim concerned?"<sup>5</sup>

**Hon'ble High Court of Delhi on inventive step:**

In the *F.Hoffman la Roche v Cipla*<sup>6</sup> case the Hon'ble Delhi High Court had observed that the obviousness test is what is laid down in *Biswanath Prasad Radhey Shyam vs Hindustan Metal Industries Ltd (AIR 1982 SC 1444)*<sup>7</sup> and that "Such observations made in the foreign judgments are not the guiding factors in the true sense of the term as to what qualities that person skilled in the art should possess. The reading of the said qualities would mean qualifying the said statement and the test laid down by the Supreme Court."

Hon'ble High Court further added "From the bare reading of the afore quoted observations of Supreme Court, it is manifest that the Hon'ble Supreme Court has laid down the test for the purposes of ascertaining as to what constitutes an inventive step which is to be seen from the standpoint of technological advancement as well as obviousness to a person who is skilled in the art. It is to be emphasized that what is required to be seen is that the invention should not be obvious to the person skilled in art. These are exactly the wordings of New Patents Act, 2005 u/s Section 2(ja) as seen above. Therefore, the same cannot be read to mean that there has to exist other qualities in the said person like unimaginary nature of the person or any other kind of person having distinct qualities..... Normal and grammatical meaning of the said person who is skilled in art would presuppose that the said person would have the knowledge and the skill in the said field of art and will not be unknown to a particular field of art and it is from that angle one has to see that if the said document which is prior patent if placed in the hands of the said person skilled in art whether he will be able to work upon the same in the workshop and achieve the desired result leading to patent which is under challenge. If the answer comes in affirmative, then certainly the said invention under challenge is anticipated by the prior art or in other words, obvious to the person skilled in art as a mere workshop result and otherwise it is not. The said view propounded by Hon'ble

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5 *Biswanath Prasad Radhey Shyam vs Hindustan Metal Industries Ltd (AIR 1982 SC 1444)*

6 *F. Hoffmann-La Roche Ltd vs Cipla Ltd., Mumbai Central, ... on 7 September, 2012*

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Supreme Court in Biswanath Prasad (supra) holds the field till date and has been followed from time to time by this Court till recently without any variance..... Therefore, it is proper and legally warranted to apply the same very test for testing the patent; be it any kind of patent. It would be improper to import any further doctrinal approach by making the test modified or qualified what has been laid down by the Hon'ble Supreme Court in of Biswanath Prasad (supra).”

Accordingly the following points need to be objectively judged to ascertain whether the invention does have inventive step or not:

1. Identify the inventive concept of the claim in question;
2. Identify the "person skilled in the art", i.e competent craftsman or engineer as distinguished from a mere artisan;
3. Identify the relevant common general knowledge of that person at the priority date;
4. Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed;

Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of inventive ingenuity?

**Illustrative case laws:**

1. In the case of application No. IN/PCT/2002/00020/DEL, it was concluded under section 25(1), that invention as claimed in finally revised claims 1 to 49 in the patent application did not involve any "inventive step" having regard to the prior art citations JP-8059512 published on 5th March, 1996 and US Patent 5,885,617 published on 23rd March, 1999. Therefore, it could not be considered as an invention under section 2(l)(j) of the Patents Act, as it is a mere admixture and therefore not patentable under section 3(e) of the Patents Act. It was held that “the selection of particular range of ingredients from the ranges already known prior art in this case cannot amount to establish the inventive step and the variations in the amounts of the known ingredients appear merely workshop improvements achieved by a person skilled in the art without performing any substantial experiments and cannot be said a technical advancement of an existing knowledge which is required by the definition of the "inventive step" as mentioned in section 2(l)(ja) of the Patents Act, 1970.” For the ground under section 3(e), it was held that “the existence of

already known characteristics of composition with known ingredients cannot be termed as synergy among the ingredients of claimed composition”

2. In the case of Patent No. 173953 (223/BOM/1991), the invention was related to “process for making a soap composition contains glycerol”. Opposition was lodged on the grounds of prior publication, prior public knowledge, and obviousness, not an invention within the meaning of the Act and also for not sufficiently defining the invention. It was held that the ingredients recited in the principal claim had a very specific and narrow range of proportions, which were not taught by cited documents. Cited document did not teach how to obtain the right balance of salt and glycerol in order to avoid a soap which is too hard or too soft. Also, in the cited documents there was no mention of balancing the quantities of glycerol or salt against the quantities of total fatty matter. Therefore, the opponents failed to establish the grounds.
3. In the case of Patent No. 183455 (203/BOM/1997), the invention related to a process for preparation of injectable Nimesulide composition. Opposition was lodged on the ground of obviousness, among other grounds such as prior publication and prior public knowledge. In view of the cited Sri Lankan Patent, the alleged invention stood anticipated as the cited document disclosed the invention or disclose information in such a way as to make it part of the state of the art. The claim lacked in novelty if information about anything falling within its scope had already been disclosed in the prior art. Thus, for example, if a claim specified alternative, or defined the invention by reference of range of values, then the invention was not new if one of these alternatives, or if a single example falling within this range, was already known. Thus a specific example was sufficient to destroy the novelty of a claim when the same is defined generically. The grant of patent was refused on the above grounds.
4. In the case of *Ajay Industrial Corporation v. Shiro Kamas of Iberaki City* (AIR 1983 Del 496.), the specification and claims had all to be read together and reasonably and benevolently construed. In the absence of any technical or expert evidence either indicating that these statements were wrong or that the article produced incorporated no new devices to get over these defects, it could not be held that the patent embodied no new discovery or invention. It was held that the appellant had not discharged the onus that lay on it to establish that the respondent's patent could not have been registered and, therefore, needed to be revoked.

5. In *Franz Zaver Huemer v. New Yesh Engineers*, (1996 PTC (16) 164 Del.) the court observed that the plaintiff was not an inventor of the patent device as the device was already being used in machines for several years in several countries especially in India. The defendant had set out several details to show that the machines were already being manufactured for over one and a half decade vide para 9 to 16 of the affidavit, leading to an inference that there was nothing new in the plaintiff's device. The court also observed that arrangement or rearrangement of the already known device did not amount to an invention.
  
6. In *Surendra Lai Mahendra v. Jain Glazers* [1981 PTC 112 Del ] it was held that the plaintiff's patent was nothing more than an indigenous combination of certain integers which formed part of Morance machine designed to be a less expensive and cheaper apparatus. The court observed that while it might be termed as simplification of the apparatus to some extent but it was difficult ex facie to say that it involved an exercise of inventive step or inventive faculty. The applicant had produced a workable machine but it incorporated almost all the integers and components of Morance machine. So it could not be said that he had added a scintilla of invention to produce the same. On his own showing the plaintiff had to handle a couple of Morance machines which were not found to be workable in India and therefore, his services had to be secured by the parties concerned as a skilled technician to put the same in working order. The court, therefore, noted that the plaintiff after having tried his hand on Morance machines, was able to devise an apparatus of his own by virtually copying the same process and making some alterations and adjustments here and there so as to obviate the necessity of sophisticated and costly integers used by Morance.

### **3.4.3 Industrial Applicability: Concept**

The third criteria of patentability are that the invention should be capable of industrial application. It is defined in Section 2 (1) (ac) of the Patents Act, 1970.

*Section 2 (1) (ac) "Capable of Industrial application", in relation to an invention, means that the invention is capable of being made or used in an industry.*

If the subject matter is devoid of industrial application it does not satisfy the definition of "invention" for the purpose of the Act. Ordinarily, "Industry" is taken in its broad sense as including any useful and practical, as distinct from intellectual or aesthetic activity. It does not necessarily imply the use of a machine or the manufacture of a product and covers

such thing as a process for dispersing fog or a process of converting energy from one form to another.

Vague and speculative indication of possible objectives that might or might not be achievable by carrying out further research with the tool as described may not be sufficient for fulfilment of the requirement of industrial applicability. The purpose of granting a patent is not to reserve an unexplored field of research for an applicant.

Methods of testing are generally regarded as capable of industrial application if the test is applicable to the improvement or control of a product, apparatus or process which itself is capable of industrial application. It is therefore advisable to indicate the purpose of the test if this is not otherwise apparent.

Processes or articles alleged to operate in a manner which is clearly contrary to well-established physical laws, such as perpetual motion machines, are regarded as not having industrial application.

An invention for a method of treatment of the human or animal body by surgery or therapy or of diagnosis practised on the human or animal body is not taken to be capable of industrial application.

Parts /pieces of the human or animal body to be used in transplants are objected as not being capable of industrial application.

#### **Illustrations:**

- ✚ The requirement that the invention can be made or used “in any kind of industry” so as to be “capable of industrial application” carries the connotation of trade or manufacture in its widest sense and whether or not for profit and further, that no industry exists in that sense to make or use that which is useless for any known purpose.
- ✚ There must be a product, but this need not be an article or substance, but must be something in which a new and useful effect, be it creation or alteration, may be observed. It may, for example, be a building, attract or stratum of land, an electrical oscillation, but it must be useful in practical affairs. A method of eradicating weeds was held to give rise to a product (an improved crop) because this was an artificially created state of affairs; moreover it was one whose significance was economic.
- ✚ An application relating to a scheme for exchanging all or part of a prison sentence for corporal punishment was held to lack industrial applicability and also to be a method for doing business.

- ✚ A method for effecting introductions with a view to making friends was held not to be industrially applicable, even though it could be carried out by a commercial enterprise. It was also found to be excluded as a method of doing business. In a patent for a photo-booth camera was held that the folded optical path as described and claimed could not give rise to the claimed narrowing of the depth of field. As a result, the hearing officer held that the invention could not work as described and claimed, and so lacked industrial applicability.

### 3.5 Inventions not patentable

*Section 3: What are not inventions.-*

*The following are not inventions within the meaning of this Act, -*

- (a) an invention which is frivolous or which claims anything obviously contrary to well established natural laws;*
- (b) an invention the primary or intended use or commercial exploitation of which could be contrary public order or morality or which causes serious prejudice to human, animal or plant life or health or to the environment;*
- (c) the mere discovery of a scientific principle or the formulation of an abstract theory or discovery of any living thing or non-living substances occurring in nature;*
- (d) the mere discovery of a new form of a substance which does not result in the enhancement of a known efficacy of that substance or the mere discovery of a new property or new use of a known process, machine or apparatus unless such known process results in a new product or employs at least one new reactant.*

*Explanation: For the purpose of this clause, salts, esters, ethers, polymorphs, metabolites, pure form, particle size, isomers mixtures of isomers, complexes, combinations and other derivatives of known substance shall be considered to be the same substance, unless they differ significantly in properties with regard to efficacy*

- (e) a substance obtained by a mere admixture resulting only in the aggregation of the properties of the components thereof or a process for producing such substance;*
- (f) the mere arrangement or re-arrangement or duplication of known devices each functioning independently of one another in a known way;*
- Omitted.*
- (h) a method of agriculture or horticulture;*

*(i) any process for the medicinal, surgical, curative, prophylactic, diagnostic, therapeutic or other treatment of human beings or any process for a similar treatment of animals to render them free of disease or to increase their economic value or that of their products.*

*(j) plants and animals in whole or any part thereof other than micro-organisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals;*

*(k) a mathematical or business method or a computer program per se or algorithms;*

*(l) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions;*

*(m) a mere scheme or rule or method of performing mental act or method of playing game;*

*(n) a presentation of information;*


*(o) topography of integrated circuits;*


*(p) an invention which in effect, is traditional knowledge or which is an aggregation or duplication of known properties or traditionally known component or components.*

The section “Inventions - non-patentable” describes certain products and processes, which are not to be regarded as patentable inventions as per the Act. These statutory exclusions are illustrated in the following paragraphs.

*3(a) “An invention which is frivolous or which claims anything obviously contrary to well established laws*

Some examples of a frivolous nature and contrary to natural laws are:-

 A machine purporting to produce perpetual motion.

 A machine alleged to be giving output without any input.



- ✚ “A method of showing time on the basis of metric system” wherein dial of time piece having three hands for indicating, hour, minutes and seconds was divided into 10 parts for hours, each hour into 100 minutes and each minute into 100 seconds. The invention was held frivolous and not considered a patentable invention. (Indian patent application No. 101/Bom/72).
- ✚ Merely making in one piece, articles previously made in two or more pieces is frivolous. Mere usefulness is not sufficient [Indian Vacuum Brake’ Company Ltd v. Lourd (AIR 1962, Cal 152)].
- ✚ A machine allegedly giving 100% performance.

3(b) *“An invention the primary or intended use or commercial exploitation of which could be contrary public order or morality or which causes serious prejudice to human, animal or plant life or health or to the environment.”*

Some examples are:

- ✚ Any device, apparatus or machine or method for committing theft/burglary,
- ✚ Any machine or method for counterfeiting of currency notes,
- ✚ Any device or method for gambling,

(ii) Inventions, the established or intended use or commercial exploitation of which is found to be injurious to public, animal or plant life or health, such as, a method of adulteration of food.

(iii) An invention, the present or intended use of which is likely to violate the well accepted and settled social, cultural, legal norms of morality, e.g. method of cloning,

(iv) An invention, the primary or proposed use of which would disturb the public order e.g. a device for house-breaking.

(v) Adequate care should be taken while examining the inventions vis-à-vis their primary or intended use or commercial exploitation and it should be carefully dealt so that the subject-matter must not be contrary to public order, morality or causes serious prejudice to human, animal or plant life or health or to the environment. A few non limiting examples may further clarify the issues: (a) a process for cloning human beings or animals; (b) a process for modifying the germ line of human beings; (c) a process for modifying the genetic identity of

animals which are likely to cause them suffering without any substantial medical or other benefit to man or animal, and also animals resulting from such process; (d) a process for preparing seeds or other genetic materials comprising elements which might cause adverse environmental impact; (e) uses of human embryos for commercial exploitation.

3(c) “The mere discovery of a scientific principle or the formulation of an abstract theory or discovery of any living thing or non-living substances occurring in nature”

There is a difference between discovery and invention. A discovery adds to the amount of human knowledge by disclosing something already existent, which has not been seen before, whereas an invention adds to the human knowledge by creating a new product or processes involving a technical advance as compared to the existing knowledge.

A claim for discovery of scientific principle is not considered patentable, but such a principle when used with process of manufacture resulting into a substance or an article may be patentable.

A scientific theory is a statement about the natural world. These theories themselves are not considered patentable, no matter how radical or revolutionary an insight they may provide, since they do not result in a product or process. However, if the theories lead to practical application in the process of manufacture of article or substance, they may well be patentable. A claim for formulation of abstract theory is not patentable. For example, the fact that a known material or article is found to have a hitherto unknown property is a discovery and not an invention. But if the discovery leads to the conclusion that the material can be used for making a particular article or in a particular process, then the article or process could be patentable.

**Examples:**

1. Claim: A compound for cardiac disorder related activity, wherein the compound is obtained from the cerebrospinal fluid of horseshoe crab, *Tachypleus gigas*.

Analysis: The subject-matter is not patentable under Section 3 (c) of the Act, because the application attempts to claim a compound, which is isolated from cerebrospinal fluid of embryos of horseshoe crab, *Tachypleus gigas* (i.e. a compound which is nonliving substance occurring in nature). As per Section 3 (c) of the Act, a non-living substance occurring in nature is statutorily non-patentable subject-matter.

2. Invention: An extract of *Calotrophis gigantea* containing cardiac glycosides having antineoplastic effect, which exhibit in vitro cytotoxic activity on human carcinoma cell line without exhibiting cytotoxicity on a normal human cell line, wherein the extract is effective against human lung carcinoma cell line A549 and human colon adenocarcinoma cell line COL0205 without showing cytotoxicity on a normal human cell line W138.

Analysis: The claimed extract of *C. gigantea* containing cardiac glycosides is statutorily excluded from patentability under Section 3 (c) of the Act, as being directed to a discovery of non-living substance occurring in nature.

Examples on section 3(c):

A method of increasing the cooling effect in a heat exchanger by increasing the length of the coolant tubes is not patentable but an heat exchanger with coolant tubes arranged in a zigzag manner instead of straight line can be patentable if other criteria of patentability is satisfied.

Finding out that a particular known material is able to withstand mechanical shock is a discovery and therefore not patentable, but a claim to a railway sleeper made of the material would not fall foul of this exclusion, and would be allowable if it passed the tests for novelty and inventive step. Similarly, finding of a new substance or micro-organism occurring freely in nature is a discovery and not an invention.

*3(d) The mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance or the mere discovery of any new property or new use for a known substance or of the mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least one new reactant.*

*Explanation:- For the purposes of this clause, salts, esters, ethers, polymorphs, metabolites, pure form, particle size, isomers, mixtures of isomers, complexes, combinations and other derivatives of known substance shall be considered to be the same substance, unless they differ significantly in properties with regard to efficacy.*

(For Pharma and Biotech related inventions refer to Pharma and Biotech GLs respectively)

*Mere discovery of new property of a known substance*

A mere discovery of a new property of known substance is not considered patentable. For instance, the paracetamol has antipyretic property. Further discovery of new property of

paracetamol as analgesic can not be patented. Similarly, ethyl alcohol is used as solvent but further discovery of its new property as anti knocking, thereby making it usable as fuel, can not be considered patentable.

*Mere discovery of any new use of known substance*

A mere discovery of new property of known substance is not considered patentable. For instance, new use of Aspirin for treatment of the cardio-vascular disease, which was earlier used for analgesic purpose, is not patentable. However, a new and alternative process for preparing Aspirin is patentable. Similarly, the new use of methyl alcohol as antifreeze in automobiles. The use of methanol as a solvent is known in the prior art. A new use has been claimed in this claim as antifreeze which is not allowable. Further, a new use of Chloroquine for Sarcoidosis (a fungal disease) and for Infectious mononucleosis (a viral disease) and for Diabetic neuritis (inflammation of nerves) is not patentable.

The mere use of a known process, machine or apparatus unless such known process results in a new product or employs at least one new reactant:- Mere use of a known process is not patentable unless such known process results in a new product or employs at least one new reactant. Similarly mere use of known apparatus or machine for another purpose is also not considered patentable.

In 101/Bom/72 "Metric time showing device" was held not patentable. The device comprised a normal clock or watch having usual hands for indicating hours, minutes and seconds; wherein dial or like visual numerical indicators were divided into 10 large divisions for hours, hours divisions are divided into 100 divisions indicating minutes and each minute is divided into 100 parts representing seconds. It was held to be a mere use of known device and hence, not patentable.

*3(e) A substance obtained by a mere admixture resulting only in the aggregation of the properties of the components thereof or a process for producing such substance;*

It is a well-accepted principle of Patent Law that mere placing side by side of old integers so that each performs its own proper function independently of any of the others is not a patentable combination, but that where the old integers when placed together has some working interrelation producing a new or improved result, then there is patentable subject

matter in the idea of the working inter relations brought about by the collocation of the integers.

A mixture of sugar and some colourants in water to produce a soft drink is a mere admixture resulting into aggregation of the properties. Similarly, a mixture of different types of medicament or medicine to cure multiple diseases is also a mere admixture of substances and is not a patentable invention. However, an admixture resulting into synergistic properties of a mixture is not considered as mere admixture, e.g., soap, detergent, lubricants and polymer composition etc. A process for producing a substance by admixing, which is resulting into the aggregation of the properties of the components thereof, is also not patentable invention.

A composition of two drugs, i.e. Paracetamol and Ibuprofen for curing fever and pain or process of preparation thereof is not patentable for the reason that the composition is a mere admixture of two drug components resulting into aggregation of properties thereof; since Paracetamol is well known for treatment of fever and Ibuprofen for treatment of pain. However, if the mixture of drugs exhibits some unexpected results or synergistic properties in their action, then such composition is considered as patentable subject matter.

In general all the substances which are produced by mere admixing, or a process of producing such substances should satisfy the requirements of synergistic effect in order to be patentable. The synergistic effect should be clearly brought out in the description and examples by way of comparison at the time of filing of the application. The subsequent submission regarding synergism can be accepted in a reply to the office action as a further support of synergy. However, the submitted data shall not be allowed to form part of the specification.

*3(f) The mere arrangement or re-arrangement or duplication of known devices each functioning independently of one another in a known way.*

“It is important to bear in mind that in order to be patentable an improvement on something known before or a combination of different matters already known, should be something more than a mere workshop improvement; and must independently satisfy the test of invention or an 'inventive step'. To be patentable the improvement or the combination must produce a new result, or a new article or a better or cheaper article than before. The combination of old known integers may be so combined that by their working inter relation they produce a new process or improved result. Mere collocation of more than one integers

or things, not involving the exercise of any inventive faculty, does not qualify for the grant of a patent.”<sup>8</sup>

A new and useful application of an old principle may be good subject-matter. An improvement on something known may also afford subject-matter; so also a different combination of matters already known. A patentable combination is one in which the component elements are so combined as to produce a new result or arrive at an old result in a better or more expeditious or more economical manner. If the result produced by the combination is either a new article or a better or cheaper article than before, the combination may afford subject-matter of a patent.<sup>9</sup>

The invention was related to thickness of the layers of pouch. The issue was about the thickness of plastic film/layer depends upon the tolerance of the contents in the pouch. It was held that the invention is merely an arrangement and rearrangement of the items and cannot be termed as a novel concept and does not have any novelty. Such arrangement and rearrangement of mixture of the materials cannot become an invention, for it is only an improvement by adding microns as per the strength of the layers. Thus, prima facie the invention claimed by the plaintiff in respect of the thickness of the layers of the aforesaid pouch cannot be called an invention as envisaged within the definition clause of the Patents Act. Besides, the documentary evidence placed on record prima facie indicates that the claim made by the plaintiff is already known in the trade and the patent was pre-published.<sup>10</sup>

In the case of the *Franz Zaver Huemer v. New Yesh Engineers*, (1996 PTC (16) 164 Del. ) it was held that the plaintiff could not claim the to be an inventor of the patent device as the device is already being used in machines for several years in several countries especially in India vide para 9 to 16 of the affidavit, the defendant has set out several details of the machines already being manufactured for over one and a half decade leading to an inference that there was nothing new in the plaintiff's device. Arrangement or rearrangement of the already

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<sup>8</sup> *Biswanath Prasad Radhey Shyam v. Hindustan Metal Industries* [1978] Insc 255 (13th December, 1978)

<sup>9</sup> *Lallubhai Chakubhai v. Chimanlal and Co.* (AIR 1936 Bom 99) :

<sup>10</sup> *Standipack Private Limited v. Oswal Trading Co. Ltd* (1999 (19) PTC 479 (Del))

known device does not amount to an invention. As sufficient ground exists for revocation of the plaintiff's patent, the defendant has a very good defence to the plaintiff's suit.

In the case of 1985 (5) PTC 71 (Del) , the application for grant of patent was in respect of apparatus for producing metallic bellows. During the opposition proceedings it was held that both hydraulic machine and roll forming machine were undoubtedly the separate machines functioning independently of other there being no novel feature stated by the applicant. Hence, the ground that there was no invention was accepted as the applicant was seeking the patent right on known types of hydraulic forming and roll forming machines which is not allowable.

A new combination may be the subject matter of a patent although every part of the combination, per se, is old for here the new article is not the parts themselves but the assembling and working of the parts, together. (Lallubhai Chakkubhai v. Shamaldas Sankalchand Shah, A.I.R 1934 Bom. 407).

The merit of a new combination very much depends upon the result produced. Where a slight alteration turns that which was practically useless into what is useful and important, it is fit subject matter for a patent ((Lallubhai Chakkubhai v. Shamaldas Sankalchand Shah, A.I.R 1934 Bom. 407).

In ORA/34/09/PT/KOL, the invention is to provide for a head scarf cum neck covering for woman, which would on one had provide for the desired covering for the head, ear and neck of women such as required for protection from cold conditions and at the same time essentially maintain the much required facial beauty Claim 1: A head scarf cum neck covering apparel for women comprising: a substantially rectangular shaped neck covering portion; a cap type head and ear covering port secured along one of the longitudinal edges of the said rectangular neck covering portion; said cap portion adapted such that on wearing the said cap is adapted to cover completely the head and ear region providing an open front to reveal the face of the wearer with or without the immediate front of the head just above the forehead; a converging rear of the Cap type head and ear covering portion providing for a concaved portion adapted to accommodate/surround comfortably the head including any knotted/bundled hair of long hair women.

IPAB while revoking the patent noted – “Any person who wanted to protect her face and hair would in fact have to wear the scarf and cap individually to achieve the same result. There is no doubt that the complete specification contains flowery language describing how the visual

attraction will be enhanced, how the hair of the lady will be protected. But if the verbal jugglery is removed we are left with a cap stitched to a muffler and nothing more. This in fact, is merely a juxtaposition of known components i.e., cap and muffler working independently and such combination are not patentable under section 3 (f)". It may be noted that IPAB did not rely on any prior art for cap/scarf, presumably as it was prevalent common knowledge.

*3(h) A method of agriculture or horticulture.*

A method of producing mushroom plant (64/Cal/79) and a method for cultivation of an algae (445/Del/93] were held not patentable.

*3(i) Any process for the medicinal, surgical, curative, prophylactic, diagnostic therapeutic or other treatment of human beings or any process for a similar treatment of animals to render them free of disease or to increase their economic value or that of their products.*

According to Section 3 (i) of the Act, any process for the medicinal, surgical, curative, prophylactic, diagnostic, therapeutic or other treatment of human beings or any process for a similar treatment of animals to render them free of disease or to increase their economic value or that of their products is not an invention. Under this section, the Manual of Patent Office Practice & Procedure states that the followings are excluded from patentability:

(a) Medicinal methods: As for example, a process of administering medicines orally, or through injectables, or topically or through a dermal patch;

(b) Surgical methods: As for example, a stitch-free incision for cataract removal;

(c) Curative methods: As for example, a method of cleaning plaque from teeth;

(d) Prophylactic methods: As for example, a method of vaccination;

(e) Diagnostic methods: Diagnosis is the identification of the nature of a medical illness, usually by investigating its history and symptoms and by applying tests. Determination of the general physical state of an individual (e.g. a fitness test) is considered to be diagnostic;

(f) Therapeutic methods: The term "therapy" includes prevention as well as treatment or cure of disease. Therefore, the process relating to therapy may be considered as a method of treatment and as such not patentable;



(g) Any method of treatment of animal to render them free of disease or to increase their economic value or that of their products. As for example, a method of treating sheep for increasing wool yield or a method of artificially inducing the body mass of poultry;

(h) Further examples of subject matters excluded under this provision are: any operation on the body, which requires the skill and knowledge of a surgeon and includes treatments such as cosmetic treatment, the termination of pregnancy, castration, sterilization, artificial insemination, embryo transplants, treatments for experimental and research purposes and the removal of organs, skin or bone marrow from a living donor, any therapy or diagnosis practiced on the human or animal body and further includes methods of abortion, induction of labour, control of estrus or menstrual regulation.

(i) Application of substances to the body for purely cosmetic purposes is not therapy;

(j) Patent may however be obtained for surgical, therapeutic or diagnostic instrument or apparatus. Also the manufacture of prostheses or artificial limbs and taking measurements thereof on the human body are patentable.

In the field of pharmaceuticals, it is noticed that method of treatments are often claimed in the guise of composition claims. Sometimes, such claims are converted to product claims during examination procedure. Such amendments shall be examined as per Section 57 read with section 59 of the Act.

*3(j) Plants and animals in whole or any part thereof other than micro-organisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals*

According to Section 3 (j) of the Act, plants and animals in whole or any part thereof other than micro-organisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals are not patentable inventions. Although, microorganisms are excluded from non-patentability list, a conjoined reading with Section 3 (c) of the Act implies that only modified microorganisms, which do not constitute discovery of living thing occurring in nature, are patentable subject matter under the Act. Claims relating to essential biological processes of growing plants, germination of seeds, of development stages of plants and animals shall be objected under Section 3 (j) of the Act.

### 3.6 ILLUSTRATIVE EXAMPLES:

1. Claims: A therapeutic composition for treating an immune-related disorder in a mammalian subject, the composition comprises as an effective ingredient ex vivo educated autologous NK T cells capable of modulating Th1/Th2 cell balance toward anti-inflammatory cytokine producing cells and optionally comprising pharmaceutically acceptable carrier, diluent, excipient and/or additive.

Analysis: The claimed subject-matter falls within the scope of Section 3 (j) of the Act for claiming ex vivo educated autologous NK T cells in the form of therapeutic composition. Although the claim is directed to a composition, but there is nothing like a composition; in fact the educated autologous NK T cells alone would be treated as a final product, because other ingredients are kept as optional. Just by wording a claim as a composition claim comprising additional one or more routine ingredients (for example pharmaceutically acceptable carriers) has no effect on the final product and it does not exclude the claim from falling within the scope of Section 3 (j) of the Act.

2. Claim: A method of producing at least one of substantially pure hybrid seeds, plants and crops, comprising the steps of (i) producing a male parent which is male fertile, (ii) breeding the male parent with a female parent which is substantially male sterile, and (iii) harvesting seeds from the female parent which contain pure hybrid seeds.

Analysis: The claimed method involves the step of cross breeding for producing pure hybrid seeds, plants and crops. Thus, it is an essentially biological process and not allowable under Section 3 (j) of the Act.

As per this sub-section, while plants and animals or any part of the plant or animal is not patentable, an exception is made in the case of micro-organisms. However, any discovered micro-organism from the nature is not patentable.

In *Dimminaco – A.G v. Controller of Patents & Designs and others* (AID No.1 of 2001) the issue involved was the patenting of the process for preparation of infectious bursitis vaccine, which is invented for protecting poultry against infectious bursitis. The Controller held that the process of separation of the vaccine which has living entity cannot be considered a manufacture and hence not patentable under section 2(1)(j) of the Patents Act. He also held that since the vaccine contains living organism it cannot be patented. The court held that the

matter involved is of a new process of preparation of vaccine under specific scientific conditions and the said vaccine is useful for protecting poultry against contagious bursitis infection and there is no statutory bar to accept a manner of manufacture as a patentable even if the end products contain living organism.

*3(k) A mathematical or business method or a computer programme per se or algorithms are not patentable.*

Under this provision, mathematical methods, business methods, computer programmes per se and algorithms are not considered as patentable subject matter.

‘Mathematical methods’ are considered to be acts of mental skill. A method of calculation, formulation of equations, finding square roots, cube roots and all other methods directly involving mathematical methods are therefore not patentable. With the development in computer technology, mathematical methods are used for writing algorithms and computer programs for different applications and the claimed invention is sometimes camouflaged as one relating to the technological development rather than the mathematical method itself. These methods, claimed in any form, are considered to be not patentable.

“Business Methods” claimed in any form are not patentable subject matter. The term ‘Business Methods’ involves whole gamut of activities in a commercial or industrial enterprise relating to transaction of goods or services. With the development of technology, business activities have grown tremendously through e-commerce and related B2B and B2C business transactions. The claims are at times drafted not directly as business methods but apparently with some technical features such as internet, networks, satellites, tele-communications etc. This exclusion applies to all business methods and, therefore, if in substance the claims relate to business methods, even with the help of technology, they are not considered to be a patentable subject matter.

Algorithms in all forms including but not limited to, a set of rules or procedures or any sequence of steps or any method expressed by way of a finite list of defined instructions, whether for solving a problem or otherwise, and whether employing a logical, arithmetical or computational method, recursive or otherwise, are excluded from patentability.

Patent applications, with computer programme as a subject matter, are first examined with respect to above quoted provisions. If the subject matter of an application does not fall under

these categories, then, the subject matter is examined with a view to decide whether it is a computer programme per se.

If the claimed subject matter in a patent application is only a computer programme, it is considered as a computer programme per se and hence not patentable. Claims directed at 'computer programme products' are computer programmes per se stored in a computer readable medium and as such are not allowable. Even if the claims, inter alia, contain a subject matter which is not a computer programme, it is examined whether such subject matter is sufficiently disclosed in the specification and forms an essential part of the invention.


g. If the subject matter of a patent application is not found excluded under the foregoing provisions, it shall be examined with respect to other criteria of patentability.


*3(l) A literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever including cinematographic works and television productions.*


Writings, music, works of fine arts, paintings, sculptures, computer programmes, electronic databases, books, pamphlets, lectures, addresses, sermons, dramatic-musical works, choreographic works, cinematographic works, drawing, architecture, engraving, lithography, photographic works, applied art, illustrations, maps, plans, sketches, three-dimensional works relating to geography, topography, translations, adaptations, arrangements of music, multimedia productions, etc. are not patentable. Such works fall within the domain of the Copyright Act, 1957.


*3(m) Schemes, rules and methods for performing mental acts, playing games*


Method of performing mental act or method of playing game or a mere scheme or rule are as such excluded from patentability, because they are considered as outcome of mere mental process.

 Method of learning a language.

 Method of playing chess.

 Method of teaching.

 Method of learning

 Method of operating a machine or equipment as per the set of instructions

*3(n) A presentation of information.*

Any manner, means or method of expressing information whether visual, audible or tangible by words, codes, signals, symbols, diagrams or any other mode of representation is not patentable. For example, a speech instruction means in the form of printed text where horizontal underlining indicated stress and vertical separating lines divided the works into rhythmic groups is held not patentable.

In the matter of application No. 94/Cal/2002, the Controller held, that patent system was meant for protecting only one kind of creativity, i.e., technological creativity and since the claimed invention related to business method and method of presenting information, it was not allowed.

*3(o) Topography of integrated circuits.*

Protection of Layout Designs of Integrated Circuits is governed separately under the Semiconductor Integrated Circuit Lay-out Designs Act, 2000. Three-dimensional configuration of the electronic circuits used in microchips and semiconductor chips is not patentable.

*3(p) An invention which in effect, is traditional knowledge or which is an aggregation or duplication of known properties of traditionally known component or components.*

Traditional Knowledge, being knowledge already existing, is not patentable. An example is the antiseptic property of turmeric for wound healing. Another example is the pesticidal and insecticidal properties of neem.

According to Section 3 (p) of the Act, an invention which, in effect, is traditional knowledge or which is an aggregation or duplication of known properties of traditionally known component or components is not a patentable subject matter. For the examination of TK related subject matters, separate guidelines have already been issued by the Office of CGPDTM.

**ILLUSTRATIVE EXAMPLES:**

Claim: Serum of pigeon possessing the anti-paralysis activity.

Analysis: The use of pigeon serum for the treatment of paralysis (as it possess anti-paralytic activity) is a traditional knowledge in India or is an aggregation or duplication of known properties of traditionally known component. It is clearly evident from D1 (Mahawar et al., "Animals and their products utilized as medicines by the inhabitants surrounding the Analysis: The use of pigeon serum for the treatment of paralysis (as it possess anti-paralytic activity) is a

traditional knowledge in India or is an aggregation or duplication of known properties of traditionally known component. It is clearly evident from D1 (Mahawar et al., "Animals and their products utilized as medicines by the inhabitants surrounding the Ranthambhore National Park, India", Journal of Ethnobiology and Ethnomedicine, 2006, 2:46, see entire document especially Table I), which discloses the use of pigeon blood for treating paralysis.

**Inventions Relating To Atomic Energy:**

Section 4: "No Patent shall be granted in respect of an invention relating to atomic energy falling within subsection (1) of section 20 of the Atomic Energy Act, 1962 (33 of 1962)"

No patent shall be granted for the invention which in the opinion of Central Government is useful for or related to the production, control, use or disposal of atomic energy or prospecting mining extraction, production, physical and chemical treatment fabrication, enrichment, canning or use of any prescribed substance or radioactive substance or the insuring of safety in atomic energy operation.

According to Section 20(1) of Atomic Energy Act, atomic energy means energy released from atomic nuclei as a result of any process including the fission and fusion processes. Under this Act, "prescribed substances" means any substance including any mineral which the Central Government may, by notification, prescribe, being a substance which in its opinion is or may be used for the production or use of atomic energy or research into matters connected therewith and includes uranium, plutonium, thorium, beryllium, deuterium or any of these respective derivative or compounds or any other materials containing any of the aforesaid substances. The Act defines the term "radioactive substances" or "radioactive material" as any substance or material, which spontaneously emits radiation in excess of the levels prescribed by notification by the Central Government.

## Chapter 4

### International Patent Classification

#### 4.1 Importance, necessity and details

The International Patent Classification (IPC), established by the [Strasbourg Agreement 1971](#), provides for a hierarchical system of language independent symbols for the classification of patents and utility models according to the different areas of technology to which they pertain (<http://www.wipo.int/classifications/ipc/en/>). Indian Patent Office is following the IPC system for the purpose of the publication under Section 11A and for the purpose of search as well.

#### **Layout of classification symbols:**

Sections, Subsection, Class, Subclass, Group and Sub-Group are the various levels of hierarchy of the IPC Classification system.

#### **Sections:**

Sections are the highest level of hierarchy of the Classification. The IPC is divided into eight sections.

- A HUMAN NECESSITIES
- B PERFORMING OPERATIONS; TRANSPORTING
- C CHEMISTRY; METALLURGY
- D TEXTILES; PAPER
- E FIXED CONSTRUCTIONS
- F MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING
- G PHYSICS
- H ELECTRICITY

(a) **Section Symbol** – Each section is designated by one of the capital letters A through H.

(b) **Section Title** – The section title is to be considered as a very broad indication of the contents of the section.

(d) **Subsection** – Within sections, informative headings may form subsections, which are titles without classification symbols.

Example: Section A (HUMAN NECESSITIES) contains the following subsections:

AGRICULTUREFOODSTUFFS; TOBACCO

PERSONAL OR DOMESTIC ARTICLES  
HEALTH; LIFE SAVINGS; AMUSEMENT

**Classes:**

Each section is subdivided into classes which are the second hierarchical level of the classification.

(a) **Class Symbol** – Each class symbol consists of the section symbol followed by a two-digit number. Example: H01

(b) **Class Title** – The class title gives an indication of the content of the class.

Example: H01 Basic Electric Elements

(c) **Class Index** – Some classes have an index which is merely an informative summary giving a broad survey of the content of the class.

**Sub-Classes:**

Each class comprises one or more sub-classes which are the third hierarchical level of the Classification.

(a) **Subclass Symbol** – Each subclass symbol consists of the class symbol followed by a capital letter. Example: H01S

(b) **Subclass Title** – The subclass title indicates as precisely as possible the content of the subclass. Example: H01S Devices Using Stimulated Emission

(c) **Subclass Index** – Most subclasses have an index which is merely an informative summary giving a broad survey of the content of the subclass.

(d) **Guidance Heading** – Where a large part of a subclass relates to a common subject matter a guidance heading indicating that subject matter may be provided at the beginning of that part.

**Groups:**

Each subclass is broken down into subdivisions referred to as “groups”, which are either main groups (i.e., the fourth hierarchical level of the Classification) or subgroups (i.e., lower hierarchical levels dependent upon the main group level of the Classification).

(a) **Group Symbol** – Each group symbol consists of the subclass symbol followed by two numbers separated by an oblique stroke.

(b) **Main Group Symbol** – Each main group symbol consists of the subclass symbol followed by a one- to three-digit number, the oblique stroke and the number 00. Example: H01S 3/00



(c) **Main Group Title** – The main group title precisely defines a field of subject matter within the scope of its subclass considered to be useful for search purposes. Main group symbols and titles are printed in bold in the Classification. Example: H01S 3/00 Lasers

(d) **Subgroup Symbol** – Subgroups form subdivisions under the main groups. Each subgroup symbol consists of the subclass symbol followed by the one- to three-digit number of its main group, the oblique stroke and a number of at least two digits other than 00. Example: H01S 3/02.

Subgroups are ordered in the scheme as if their numbers were decimals of the number before the oblique stroke. For example, 3/036 is to be found after 3/03 and before 3/04, and 3/0971 is to be found after 3/097 and before 3/098.

(e) **Subgroup Title** – The subgroup title precisely defines a field of subject matter within the scope of its main group considered to be useful for search purposes. The title is preceded by one or more dots indicating the hierarchical position of that subgroup, i.e., indicating that each subgroup forms a subdivision of the nearest group above it having one dot less (see paragraphs 25 to 28, below). The subgroup title is often a complete expression, in which case it begins with a capital letter. A subgroup title begins with a lower case letter if it reads as a continuation of the title of the next higher, less indented group from which it depends. In all cases, the subgroup title must be read as being dependent upon, and restricted by, the titles of the groups under which it is indented. Examples: H01S 3/00 Lasers

H01S 3/14 • characterised by the material used as the active medium The title of 3/14 is to be read as: Lasers characterised by the material used as the active medium.

H01S 3/05 • Construction or shape of optical resonators The title of 3/05 is a complete expression, but owing to its hierarchical position this group is restricted to the construction or shape of optical resonators of lasers.

### **Multiple Classifications**

Multiple classifications of documents is needed, for example, when different categories of subject matter, i.e., processes, products, apparatus or materials, for which special places are provided in the Classification, constitute invention information. Another example of multiple classification may represent classifying in function-oriented places and application places when essential technical characteristics of the subject of the invention are concerned with both types of places. Multi-aspect classification is applied to subject matter which, by its nature, is characterised by several aspects, for example, by its intrinsic structure and its

particular use or property. Classifying of such subject matter according to only one aspect would lead to incomplete search information.

The classification symbols allotted should not be restricted to the place or places in the Classification which cover only one aspect of a technical subject identified. Due regard should also be given to further places in the Classification where other non-trivial aspects of that technical subject may need to be classified.

#### **CLASSIFICATION OF TECHNICAL SUBJECTS OF INVENTIONS:**

Accurate identification of the technical subject(s) with which each invention is essentially concerned, is of paramount importance for the purpose of classification. Many times invention relates only to a particular field of use (application-oriented), while at other times embrace a wider concept in which the constructional or functional characteristics are described (function-oriented).

Thus, to classify a technical subject in a function-oriented place or in an application-oriented place, the following should be observed:

(a) If a particular application is mentioned, but not specifically disclosed or fully identified, classification is made in the function-oriented place, if available.

(b) If the essential technical characteristics of the subject relate both to the intrinsic nature or function of a thing and to its particular use, or its special adaptation to or incorporation into a larger system, classification is made in both the function-oriented place and the application-oriented place, if available.

(c) If guidance indicated in subparagraphs (a) and (b), above, cannot be used, classification is made in both the function-oriented place and the relevant application-oriented places.

When classifying a larger system (combination) as a whole, attention should be given to parts or details whenever they are novel and unobvious. Classification of both the system and these parts and details is necessary.

#### **EXAMPLES OF IPC CLASSIFICATION:**

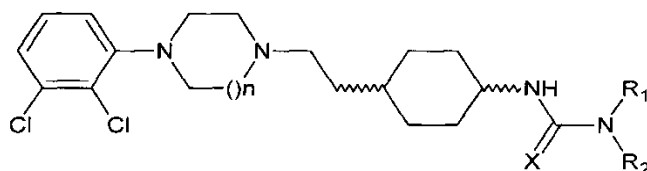
##### **Example 1:**

The present invention relates to use of (thio)-carbamoyl-cyclohexane derivatives, particularly trans-4-{2-[4-(2,3-dichlorophenyl)-piperazin-1-yl]-ethyl}-N,N-dimethylcarbamoyl-cyclohexylamine and pharmaceutically acceptable salts thereof in the manufacture of a medicament for the treatment of acute mania. Furthermore, the present invention relates to the treatment of acute mania through the administration of (thio)-carbamoyl cyclohexane

derivatives, particularly trans-4-{2-[4-(2,3-dichlorophenyl)-piperazin-1-yl]-ethyl}-N,N-dimethylcarbamoyl-cyclohexylamine and pharmaceutically acceptable salts thereof.

Classification:

Structure of above-mentioned (thio)-carbamoyl-cyclohexane derivative



IPC Stats search using the expression “piperazine and mania” results in the following classifications:

A61K 31/495 (related to piperazine derivative)

A61P 25/18 (related to mania)

**Example 2:**

Use of a composition comprising a fixed combination of

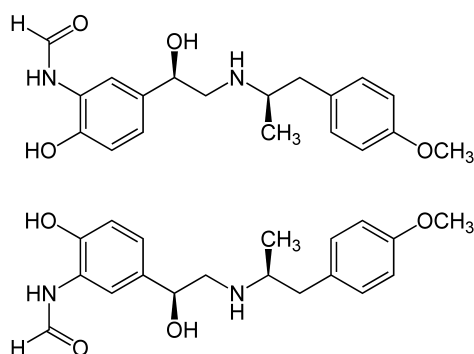
a) formoterol, a pharmaceutically acceptable salt or solvate thereof or a solvate of such a salt; and

b) beclometasone dipropionate;

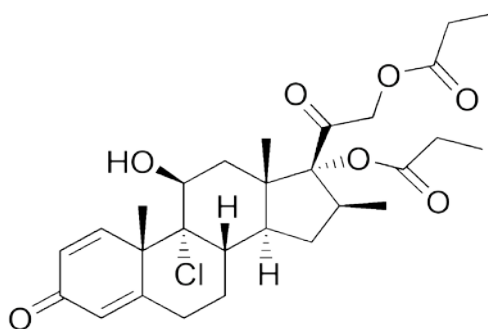
for the manufacture of a medicament for use in the prevention and/or treatment of an exacerbation of asthma, intermittent asthma and/or episodes in chronic asthma during the maintenance therapy of asthma with the same composition for symptomatic relief, when needed.

Classification:

Structure of formoterol



Structure of beclometasone dipropionate



IPC Stats search using the expression “formoterol and beclometasone and asthma” results in the following classifications.

A61K 31/167 (related to formoterol)

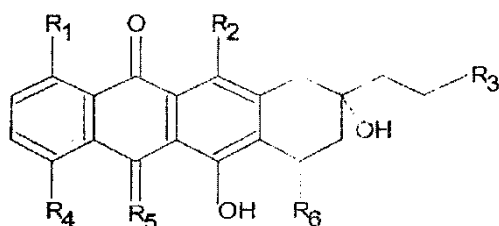
A61K 31/57 (related to beclometasone)

A61P 11/06 (related to asthma)

**Example 3:**

An anticancer composition, comprising:

a) a 13-deoxy anthracycline of the following formula



Wherein; each R1, R2 and R3 individually is H or OH; R4 is H, OH, alkyl, or O-alkyl; R5 is O or NH; and R6 is a sugar moiety, pharmaceutically acceptable salts thereof; and

b) a taxane.

Classification:

IPC Stats search using the expressions “deoxy anthracycline and cancer” and “taxane and cancer” results in the following classifications.

A61K 31/70 (related to anthracycline)

A61K 31/337 (related to taxane)

A61P 35/00 (related to cancer)

A61K 9/14 (related to composition)

C07D 305/14 (related to chemical structure of taxane)

**Example 4:**

A pair of foldable glasses comprising: two lenses having a first side and a second side, the first side facing outwards and the second side facing the wearer; a hinged bridge for connecting the lenses together and permitting the lenses to fold together either forwards or rearwards; two temple pieces extending from an outer edge of the lenses with a hinged connection between each of the temple pieces and the outer edge of the lenses enabling the two temple pieces to fold inwards or forwards, wherein the two temple pieces have a hinged joint permitting a rear section of the temple pieces to fold forwards underneath the temple pieces; and a connection means on the outer edge of the lenses, wherein the connection means have complimentary male and female connectors.

Classification:

OPTICAL DEVICES / EYEPIECES  
G02B25/00  
G02B5/00  
G02C5/00; G02B25/00; G02C5/08; G02C5/14

Section	Class	Subclass	Group
G Physics	02 Optics	B Optical elements, systems, or apparatus C SPECTACLES; SUNGLASSES OR GOGGLES	25/00 Eyepieces; Magnifying glasses 5/00 Construction of non-optical parts

**Example 5:**

A method for sending data, comprising: transmitting data bit 1 by a periodic wave with a period T1 and transmitting data bit 0 by a periodic wave with a period T2, T1 being unequal to T2; and sending continuously a corresponding periodic wave according to a bit sequence of data to be sent, wherein the bit sequence of the data to be sent comprises successively a synchronous head, a character to be transmitted and a synchronous tail; the synchronous head has M bits and M is greater than or equal to 2, and bit values of the M bits of the synchronous head are the same; the synchronous tail has N bits and N is greater than or equal to 2, and bit values of the N bits of the synchronous tail are the same.

Classification:

TRANSMITTER AND RECEIVERS / TRANSCIEVERS  
H04B 1/02, 1/06

H Electrical	04 Communication Technique	B transmission	1/02, 1/06 Transmitters Receivers
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## Chapter 5

### **Search for Novelty and Inventive Step**

#### **5.1 Concepts including search standards**

Before conducting search, the examiner should read thoroughly the specification from which an idea about the boundary of the alleged invention can be developed. Section 10(5) mandates that the claims shall be fairly (not exactly ) based on description . Having read the specification the examiner shall prepare a precise and concise statement setting out all the technical features along with functional relationship there between contributing to objective of the invention and advantages over the prior art admitted in the specification, in respect of every set of independent claim (interpreting claim in the light of specification ), provided that said each independent claim is not repetitive. This way examiner will know what are the elements/features to be searched for. Examiner shall keep in mind that what is disclosed and what is being claimed ( scope of claims arising from drafting skills) shall match as required under Section10. Examiner shall try to understand what is explicitly and implicitly contained in the specification vis-à-vis the background art and there by formulate the problem and the technical solution as proposed by the applicant.

#### **Search query**

Search query is a structured command to search prior art from patent/non-patent databases, comprising key words (with synonyms, alternate spellings etc.), classifications, suitably connected by operators. A group of search queries prepared by the examiner to obtain relevant citations in respect of novelty ,inventive step etc. is called search strategy and will be indicative of the efforts made to retrieve prior art. Search is an iterative process through which an examiner by trial and error tries to find out the most appropriate citations as he deems fit.

The examiner has to record the search strategy and the databases accessed. It may be borne in mind that the recorded search strategy should reproduce the same results that have been specified in the examiner's report unless it is evident that the database underwent further changes with respect to the entry of the data available up to the time and date of search.

#### **The language of search**

Let us assume that we have to find prior art for “Bat for killing mosquitoes using electric potential”.

## Keywords

Bat, Kill, Mosquito and Electric potential

If the key words alone are used to search for prior art then the results will be either too many or none. Therefore the patent Classification and words in suitable combination, one can find prior art in shortest possible time. If the key words are located far away in the documents we are looking for, it is quite possible that the document/s may not be useful. But if the key words of the search query are located closer it is more probable that the document/s retrieved will be relevant to what we are searching for.

**Operators:** Operators help in positioning key words at proper place, which determine the relevancy and the number of the results we are searching for, using the keywords.

Operators are of kinds: Proximity and Boolean operators.

**Boolean operators:** determine what key words should be present.

OR Finds records containing at least one of the words

AND Finds records containing both (All) words

NOT The first term without the second term

**Proximity operators** ( A and B separated by n words, A and B separated by n paragraphs , A and B separated by n lines ,n being 1 or more .A,B are the technical features we are looking for) determine the spacing between key words. One has to vary Proximity operators (i.e spacing between) as per the results obtained. Root words should be used to obtain more but relevant results. Modern computing techniques enable retrieving results by searching for root words in patent databases.

F The terms in the same field

S The terms in the same sentence

P The terms in the same paragraph

D The terms adjacent in any order

nD The terms adjacent, regardless of the order, separated by a maximum of n words (n value between 1 and 99)

=nD The terms adjacent, regardless of the order, separated by exactly n words (n value between 1 and 99)

- W The terms adjacent in the order specified; treatment applied by default for two terms entered without operator
- nW The adjacent terms in the order specified and separated by a maximum of n words (n value between 1 and 99)
- \_ The underscore allows for simultaneous searching of terms that may be written as one or two words. It will also retrieve results where there is a hyphen between terms. It can also be used in chemical formulas.
- Parentheses Parentheses (nesting) are necessary when combining different operators

**Stemming:** A Root word “Destroy” can be used as “destroyed /destroying/destroy” for the purpose of prior art search. Therefore one has to use the root word (destroy) to capture all possible ways using a word to retrieve prior art. For example if a document teaches “An insect destroying implement powered by electric voltage” that will certainly be relevant to the example we have chosen. One Boolean operator should be used very sparingly “AND” is implicit when we use Proximity operators. “And” if used instead of proximity operators, will give so many non-relevant documents.

**Classification:**

Classification is a tool to overcome differences in human expression/s & language/s and is an alphanumeric representation to index as well as retrieve relevant documents from the databases. For example “rank information” is used only by Japanese applicants in the field of printers. For instance, many Japanese patent documents are available as classified as per F terms; still further EPO and USPTO are presently using CPC as their classification system. While formulating the search strategy if the Examiner feels comfortable he may use combinations of such classification or may use such classification alone

**5.2 Guidance (search strategy, databases, methodology, recording, reporting etc)**

**Novelty search**

Having prepared a concise and precise statement for every independent claim, and search for all those identified technical features and their functional relationship between them. If the retrieved document/s includes all the technical features which contribute to objective of the invention, such document/s takes away the novelty (objective or technical features can be implicit also). In order to demonstrate lack of novelty, the anticipatory disclosure must be entirely contained within a single document. If more than one document is cited, each



must stand on its own, or the documents so cited are linked in such a manner so that they form a continuous document. It may be noted that for the purpose of the novelty determination following documents need to be searched: a) the documents published before the date of priority date of the claim under consideration b) the patent documents filed in India before the date of priority of the claim under consideration but published after the date of priority.

#### **Note**

For prior published Indian specification (published on or after 01.01.1912) and for prior claiming document searching of Indian specification are mainly required and for that reason search through module is so essential. Searching of prior claiming document is required to avoid double patenting. Apart from the techniques elaborated, search shall be conducted based on inventor's name or applicant's name or both.

In search report, the examiner shall incorporate at least;

- The application Number
- The patent classification(IPC)
- The relevant citations with their number and date of publication
- The paragraph indicating similarities of the invention with the citations
- Documents in the search report shall be categorised as X, Y, A or P, X.

### **5.3 Examples**

#### **Search Example 1:**

**Title: AUTO DISABLED SYRINGE**

#### **Claim :**

1. A auto disabled disposable syringe, comprising:
  - a needle to administer a drug solution into a human body;
  - a hub to support the needle;
  - a hollow barrel having a tip such that the hub is fitted over the tip;
  - a piston moving while being in close contact with an inner wall of the barrel, thus dispensing the drug solution from the barrel through the tip; and
  - a plunger rod connected to the piston via a connection part, and moving the piston, wherein the piston comprises a protrusion protruding toward the needle, with a locking step provided on the protrusion, and the hollow tip comprises a locking groove, so that, when the drug

solution has been completely administered into the human body, the protrusion is inserted in the tip and the locking step thus engages with the locking groove, and the connection part comprises a thin member having a predetermined strength, the strength being set so that the connection part is broken, when the locking step engages with the locking groove and the plunger rod is thereafter pulled, the connection part connecting facing surfaces of the piston and the plunger rod to each other, with one or more projections being provided on at least one of facing surfaces of the piston and the plunger rod such that the surfaces are in partial contact with each other.

**1** ((DISABL+) P (SYRINGE OR HYPODERM+) P (NEEDLE OR BARREL) P (PISTON OR PLUNGER) P (PROTRU+ OR EXTEN+) P (LOCK+) P (GROOVE OR CHANNEL OR FURROW))/CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT

**2** ((DISABLE+) P (SYRINGE OR HYPODERM+) P (NEEDLE OR BARREL) P (PISTON OR PLUNGER) P (PROTRU+ OR EXTEN+) P (LOCK+) P (GROOVE OR CHANNEL OR FURROW))/CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND (A61M-005/00 OR A61M-005/178 OR A61M-005/31 OR A61M-005/315 OR A61M-005/32 OR A61M-005/34 OR A61M-005/50)/IPC

**(Shortlisting the results by putting the relevant classification from IPC [can be any classification like CPC, ECLA etc].**

**3** ((DISABLE+) P (SYRINGE OR HYPODERM+) P (NEEDLE OR BARREL) P (PISTON OR PLUNGER) P (PROTRU+ OR EXTEN+) P (LOCK+) P (GROOVE OR CHANNEL OR FURROW))/CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND PUBLICATION\_DATE <= 2004-06-22

**4** (((DISABLE+) P (SYRINGE OR HYPODERM+) P (NEEDLE OR BARREL) P (PISTON OR PLUNGER) P (PROTRU+ OR EXTEN+) P (LOCK+) P (GROOVE OR CHANNEL OR FURROW))/CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND ((PISTON) P (BREAK OR DISENGAGE))/CLAIMS) AND PUBLICATION\_DATE <= 2004-06-22

**(Here publication date filter is used , Finding the documents which may be relevant to our invention under examination)**

**5** (((DISABLE+) P (SYRINGE OR HYPODERM+) P (NEEDLE OR BARREL) P (PISTON OR PLUNGER) P (PROTRU+ OR EXTEN+))/CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND ((PISTON) P (BREAK OR DISENGAGE))/CLMS ) AND PUBLICATION\_DATE <= 2004-06-22

**6** ( ((DISABLE+) P (SYRINGE OR HYPODERM+) P (NEEDLE OR BARREL) P (PISTON OR PLUNGER) P (PROTRU+ OR EXTEN+))/ CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND ((PISTON) P (BREAK OR DISENGAGE))/CLAIMS ) AND PUBLICATION\_DATE <= 2004-06-22

7 ( ((DISABLE+) P (SYRINGE OR HYPODERM+) P (NEEDLE OR BARREL) P (PISTON OR PLUNGER) P (PROTRU+ OR EXTEN+))/ CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND ((PISTON) P (BREAK OR DISENGAGE) P (LOCK+ OR GROOVE))/CLAIMS ) AND PUBLICATION\_DATE <= 2004-06-22

8 ((SYRINGE OR HYPODERM+) P (PISTON) P (BREAK OR DISENGAGE) P (LOCK+ OR GROOVE))/ CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND PUBLICATION\_DATE <= 2004-06-22

### Search Example 2:

**Title:** UNIFIED MODEL FOR AUTHORIZING AND EXECUTING FLOW-BASED AND CONSTRAINT-BASED WORKFLOWS

**Claim:** A computer-implemented system representing a workflow model, said computer implemented system comprising: a workflow having a structured plurality of activities, said workflow further including an unstructured plurality of activities each having a constraint associated therewith; a runtime engine for performing the workflow by: executing each of the structured plurality of activities; evaluating the constraint for each of the unstructured plurality of activities; and executing each of the unstructured plurality of activities as a function of evaluating the constraint associated therewith.

### Search Strategy adopted:

1. (((workflow or (work w/2 flow) or work-flow)) w/15 (unstructur\*)) AND (((activity or activities or task or item) w/15 (specification or sequence or control or arrangement or arrange or flow or array or order))) AND PDN «10/1/2004 )

2. (((workflow or (work w/2 flow) or work-flow)) w/15 (unstructur\*)) AND PDN «10/1/2004 )

3. (((workflow or (work w/2 flow) or work-flow)) w/15 (unstructur\*)) AND (((activity or activities or task or item) w/15 (specification or sequence or control or arrangement or arrange or flow or array or order))) AND PDN

4. (((workflow or (work w/2 flow) or work-flow)) w/15 (unstructur\*)) AND (((activity or activities or task or item) w/15 (specification or sequence or control or arrangement or arrange or flow or array or order))) AND PDN

«10/1/2004 )

5. (((workflow or (work w/2 flow) or work-flow)) w/15 (unstructur\*)) AND (((activity or activities or task or item) w/15 (specification or sequence or control or arrangement or arrange or flow or array or order))) AND PDN

«10/1/2004 )

### Search Example 3:

**Claim :** A method for coating a substrate with a deposition material comprising the steps of:

- (a) atomizing the deposition material by means of an ultrasonic signal;
- (b) directing the deposition material onto the substrate; and
- (c) applying one of an in situ and post-deposition treatment to the substrate whereby the deposition material is bound to the substrate.

*Search strategy adopted:*

1. (COATING AND ATOMIZE AND ULTRASONIC)/ CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND PUBLICATION\_DATE <= 2006-10-19 = 1481 results

2. (COATING AND ATOMIZE AND ULTRASONIC AND SUBSTRATE)/ CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND PUBLICATION\_DATE <= 2006-10-19 = 797 results

3. (METHOD AND COATING AND ATOMIZE AND ULTRASONIC AND SUBSTRATE)/ CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND PUBLICATION\_DATE <= 2006-10-19 = 794 results

4. ((METHOD OF COATING) AND ATOMIZE AND ULTRASONIC AND SUBSTRATE)/ CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND PUBLICATION\_DATE <= 2006-10-19 = 176 results

5. (METHOD OF COATING AND ATOMIZE AND ULTRASONIC AND SUBSTRATE AND DEPOSITION)/CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND PUBLICATION\_DATE <= 2006-10-19 = 132 results

6. (METHOD AND COATING AND ATOMIZE AND ULTRASONIC SIGNAL AND SUBSTRATE AND DEPOSITION)/ CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND PUBLICATION\_DATE <= 2006-10-19 = 5 results

7. (METHOD AND COATING AND ATOMIZE AND ULTRASONIC SIGNAL AND DEPOSITION)/CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND

PUBLICATION\_DATE <= 2006-10-19 =5results

**Search Example 4:**

**Claim :**

1. A thermochromic material based on a supramolecular gel.
2. A thermochromic material based on an electron donor alongwith stoichiometric quantity of an electron acceptor, in an organic solvent.
3. The thermochromic material as claimed in claim 2, wherein said electron donor is an anthrylidene derivative of a triterpene such as arjunolic acid.
4. The thermochromic material as claimed in claim 2, wherein the gel to sol transition temperature can be fixed anywhere between 25 to 50°C depending on the concentration of the solutes.

**Search Strategy 1:**

1. (THERMOCHROMIC AND MATERIAL)/  
CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND PUBLICATION\_DATE <=  
2006-10-26= 2805 results
2. ((THERMOCHROMIC MATERIAL))/  
CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND PUBLICATION\_DATE <=  
2006-10-26 =887 results

**Search Strategy 2:**

1. (THERMOCHROM+ AND GEL+)/  
CLAIMS/DESCRIPTION/OBJECTIVE/TEXT/ABSTRACT AND PUBLICATION\_DATE <=  
2006-10-26 =1677 results
2. 1 AND (ELECTRON DONOR)= 10 results
3. 2 AND (ELECTRON ACCEPTOR) = 6 results

## Chapter 6

### **Examination standards and detailed official requirements**

#### **6.1 All the Standard statutory warranted objections**

In the first examination stage, the examiner shall prepare the examination report incorporating all the statutory objections required for the given patent application. All the objections taken must have some legal basis in the Patent Act and rules made thereunder. The examiner shall not leave any objection which the law so demands. A non exhaustive list of standard objections has been annexed herewith for guidance and reference. The same standard objections are included in the examination module for electronic processing of the applications. The list is just for guidance and may be suitably phrased as per the requirement is a particular application. What is expected by the examiners is that at the first examination level, they should take as many objections as may judiciously be taken. The examiners should be communicative while writing the official action or examination report. The report is open to judicial scrutiny and therefore care should be exercised to make it as communicative as possible quoting the specific provisions of the patent law wherever applicable.

#### **6.2 No unwarranted objections**

The objection which has no legal basis shall not be taken by the examiner at any stage of examination. For example, objections like:

1. If the specification specifically discloses the source and geographical origin as from outside India with clear declaration to this effect in Form-1, an objection demanding an approval from NBA should not be insisted upon.
2. If the applicant himself files the application without employing any attorney, insisting upon filing power of attorney, will be termed un-warranted.

#### **6.3 Clear explanatory nature of objections**

The objections shall be well communicative and definitive in it so as to be understood by the addressee without seeking further clarification. (For example, objections such as claims do not sufficiently define the invention, claims are not clearly worded, claim is too broad, etc. are considered as vague and unclear).

#### **6.4 Comprehensive examination report**

The examination report shall be drawn comprehensively. The objections must be supported by the legal provisions and proper reasoning. The mutually contradictory objections should be avoided and if required to be taken under some special circumstances, it shall be well communicated giving full justification of adopting such approach.

#### **6.5 Effective maintenance of objections during examination cycle**

The objection once taken shall be maintained and may be withdrawn only with proper reasoning for such withdrawal justifying it clearly.

#### **6.6 Fresh objections during amended stage to have full support of law based on available facts**

As far as possible, no fresh objection shall be taken at any stage consequent to first examination report. However, if the facts are altered, the examiner may take fresh objection at any stage but keeping in view the natural justice, such objections shall be taken with proper justification.

#### **6.7 Adherence to Patent Act and Rules**

The examiner shall always adhere to the procedures established by the Patent law and not by any other convention if it has no legal basis.

#### **6.8 Maintenance of strict timelines**

The crux of quality is in the maintenance of the timelines prescribed in the patent law. It is not only achieving the prescribed timeline for a particular procedure but maintaining the timeline with due quality component attached to the product and services of the Patent Office.

## Chapter 7

### **Amendments (types, before/ after grant, allowability, clerical error etc.)**

#### **Guidance:**

A request for amendment can be filed before the 'grant' or after the 'grant' of patent on Form-13 with prescribed fee as per in the First Schedule.

The request should state the nature of the proposed amendment highlighted in the copy annexed and give full particulars of the reason for which the request is made [S. 57(2)]. The application can be for the amendment of priority date of a claim also [S.57 (5)].

The amendment can be allowed only if it is by way of disclaimer, correction or explanation. The amendment allowed in these ways shall be only for the purpose of incorporation of actual fact. Amendment should not be allowed if the specification as amended describes matter not in substance disclosed or shown in the specification before the amendment or the amended claims do not fall wholly within the scope of a claim of the specification before the amendment (S. 59(1)).

The amended pages have to be filed in duplicate by the applicant along with duly cancelled original pages.

If the application for leave to amend an application for patent or a complete specification or a document related thereto is made after the grant of patent, the nature of the amendment proposed should be published in official journal inviting opposition by any interested person (section 57(3). Section 57(4) & rule 81(3). The leave to amend the complete specification obtained by fraud is a ground for revocation of Patent under section 64(1)(o). If the amendments are opposed by the person interested then the Controller shall give notice to the person desiring the amendments and before deciding the case, he shall give both the parties an opportunity to be heard. In case of such an opposition the procedures relating to filling of written statements, reply statements, leaving evidence, hearing and costs shall be guided by the procedures specified in rules 57 to 63. If the amendments are allowed it should be notified in the official journal (section 59(2) & R. 83).

But if there is any suit for the infringement or revocation of the patent in question pending before a court, Controller shall not pass any order allowing or refusing the application for amendment [section 57(1)].



The provisions of the section 57 shall be without prejudice to the right of an applicant to amend his specification or any other document related thereto to comply with the directions of the Controller issued before grant of a patent [section 57(6)]

The applicant or patentee may amend the application, complete specification or any document related thereto by making the application in the prescribed manner in Form 13 [Rule 81(1)]. The application shall state the nature of the proposed amendment (*highlighted in the copy annexed*) and give full particulars of the reason for which the request is made (section 57(2) and Form-13).

Any document for the amendment of which no special provision is made in the Act may be amended and any irregularity in procedure which in opinion of the Controller may be obviated without detriment to the interest of any person, may be corrected, if the Controller thinks fit and upon such terms as he may direct, on a petition made by the applicant under Rule 137 with the prescribed fee given in First Schedule.

In the matter of an application for patent no.133689, DPD, Vol.1 at 200 and in the case of *Orissa Cement (applicant) v. Belpahar Refractories (opponent)*, it was held that in the opposition proceedings, the Controller has power to allow amendments for meeting the grounds of opposition but such an implied power is subject to some restrictions as imposed by Section 59 of the Act in which powers of amendments are expressly given. Under Section 59 of the Patents Act, 1970 an applicant for a patentee may at any time, apply to amend the complete specification by way of disclaimer, correction or explanation. Unless the amendment is for the purpose of correcting an obvious mistake, the following conditions must be fulfilled viz.

- (a) The amended specification must not claim or describe matter not in substance disclosed in the specification before the amendment; and
- (b) everything covered by an amended claim must have fallen within the scope of at least one claim prior to the amendment. In other words any amendment should be allowed if
  - (i) the amended claims cover matter disclosed "in substance" in the original specification, whether or not originally claimed; and
  - (ii) nothing outside the scope of the original claims comes within the amended claims.

The amendments sought through F13 may also include an amendment to the priority date. However such an amendment has to be sought before the application has been deemed to be withdrawn.

**Scope of claims:**

In **ORA/17/2009/PT/CH [140/2012] IPAB** certain claim amendments were allowed during the prosecution of application at IPO, which the petitioner of renovation, claimed as not conforming to requirements of section 59. Patentee stated that these amendments were carried out to meet controller's objections and need not be subjected to s.59 which is for voluntary amendments. IPAB construed the following questions-

1. Does Section 57(6) permit an applicant to file an application which is defective in its description of the invention in order that he may subsequently make good that defect by providing additional further descriptive material?
2. Are all the routes for amending defects, subject to Section 59?
3. Does even refining of description in the specification by way of explanation be held to be an amendment to cure the deficiencies that are not permissible under section 59?

IPAB set aside the amendments, including that of claims. –“The purpose of Section 57(6) is not to permit an applicant to file an application which is defective in its description of the invention in order that he may subsequently make good that defect by providing additional further descriptive material....added matter in the specification and claims is such that it described the matter not in substance disclosed or shown in the specification before the amendment. **Further amended claims 1-20 do not fall wholly within the scope of the claims 1-4 as originally filed.** We are convinced that amendments carried out during the prosecution of the application in the specification, drawings and claims extend the scope of disclosed matter and claims, which is particularly prohibited by Section 59”.

**ORA/07/2009/PT/CH [109/2013] IPAB**

*“... If claimed amendment is narrower than the original claim and it brings clarity and explains the inventive step and novelty, we are bound to consider it. However we cannot allow an amendment that does not stand the test of Section 59. If the amendment falls within the scope of the original claim and does not claim anything beyond it, we may consider whether our discretion should be exercised for granting the amendment in lieu of revoking the patent..... The respondent has invoked section 58 to seek amendments.*

*Section 58 allows us to use our discretion to amend if we decide that the patent is invalid. However the limitation under section 59 particularly relates to amendment of claims “No amendment of .....a complete specification .....shall be made .....and no amendment of a complete specification shall be allowed, the effect of which would be that the specification as amended would claim .....or that any claim of the specification as amended would not fall within the scope of any claim of the specification before the amendment.””*

**Adding new features into claims:**

In **OA/4/2009/PT/CH [189/2012] IPAB** broadly concurred with controller in rejecting claim amendments sought during opposition, albeit for different reasons. IPAB notes “...We also find the amended claims are beyond the scope of the claims as originally filed specifically in view of the addition of the following elements such as scan of outer surface is taken at an **arbitrary initial position**; obtaining **at least two data and registering the same with respect to the initial position**; **Data to be fed in the computer (for calculation of tri-dimensional image of diamond and inclusion)**; **registration of translations and rotations and the scan of outer surface**; **knowledge of reflecting index of the diamond**; **determination of cylinder for a direction of observation (claim 5)** ; **motoring means (Claim7)**. None of these elements were claimed in the originally filed claims. Therefore such inclusions by way of amendments are not permissible under section 59”.

**Amendment of Priority date:**

In W.P. (C) 801 of 2011- Delhi HC, an applicant missed the 48 months’ time limit to file F18. Later a F13 was filed to disclaim the priority so as to extent the time limit to file F18. However patent office rejected F13 as the application has already been deemed to have been withdrawn under s. 11B. On a writ appeal, HC observed, “...There is logic to the time limits set out under the Act. The scheme of the Act and the Rules require time-bound steps to be taken by applicants for grant of patent at various stages. The provisions of the Act and the Rules have to expressly reflect the legislative intent to permit relaxation of time limits, absent which such relaxation cannot be „read into“ the provisions by a High Court exercising powers under Article 226 of the Constitution.” Though it was conceded that the priority date can be amended, and no time limit has been set for filing F13, applicant cannot file a F13 on an application which has ceased to exist.

**Inordinate delay**

In ORA/6/2009/PT/CH, IPAB stated that discretion may be applied in allowing amendments when there is an inordinate delay in presenting amendments. In the instant case, IPAB noted that amendments could have been presented when patentee's expert evidence itself suggested that. IPAB also did not accept the argument of inadvertent error when the terms which were said to be erroneous were actually present in granted claims in US and EP.

## Chapter 8

### **Pre-grant disposal procedure**

#### **Pre-Grant Opposition**

- ✚ Any person may file an opposition by way of representation to the Controller against the grant of Patent, at the appropriate office, at any time after publication of patent application u/s 11A, but before the grant of Patent on any of the grounds mentioned in Section 25(1). The date of grant of Patent is the date on which the Controller orders the grant of patent in the file. Simultaneously, the patent number is generated and the fact of granting the patent is available on the official website.
- ✚ If any pre-grant opposition is received after the grant of the patent, the Controller shall return the pre-grant opposition to the opponent and shall intimate such opponent about the fact of grant of the patent.
- ✚ If the opponent is a person interested, he may also file a formal post grant opposition.
- ✚ A Patent is not granted before the expiry of six months from the date of publication under Section 11A. Therefore, a person may file the pre-grant opposition within the assured period of six months from the date of Publication, to make sure that the pre-grant opposition is filed before the grant of patent.
- ✚ The representation shall include a statement and evidence, if any, in support of such representation and a request for hearing, if so desired.
- ✚ The Controller shall consider the representation only after a Request for Examination for that Application has been filed.
- ✚ The Pre-Grant Opposition, if available on record, is considered by the Controller along with the report of the Examiner.
- ✚ The examiner has to include the comprehensive objections in the examination report on the basis of documents submitted by the opponents
- ✚ On consideration of the opposition, if the Controller is of the opinion that the opposition is devoid of any merit, an opportunity of hearing shall be granted to the opponent, if requested. After hearing the opponent, if the Controller is still of the opinion that the opposition shall be refused, a speaking order shall be issued rejecting the pre-grant opposition, ordinarily within one month.

However, if the Controller is of the opinion that pregrant opposition has merit and the application shall be refused or amended, a notice is given to the applicant along with a copy of the representation.

The applicant shall, if he so desires, give reply to that representation along with his statement and evidence, if any, in support of his application within three months from the date of the notice.

- ✚ The Controller shall consider the statement and evidence filed by the applicant and may either refuse the grant of patent or ask for amendment of the complete specification to his satisfaction before the grant of patent.
- ✚ After considering the representation and submissions made during the hearing, the Controller shall proceed further simultaneously, either rejecting the representation and granting the patent or accepting the representation and refusing the grant, ordinarily within one month from the completion of the above proceedings. If the application for patent is to be refused on consideration of the pre-grant opposition u/s 25(1), a speaking order of refusal shall be issued under Section 15.

## Chapter 9

### **Examination Report writing methodology**

#### **Report of examiner:**

The examiner prepares report of examination after conducting examination in electronic module and sends it to the controller. After due for consideration of the report of examiner by the controller as per the provisions of section 14 of the Act, the examination report along with its covering letter is generated through the module and subsequently sent to the address of service as mentioned on Form-1.

#### **Approval/Decision of Controller:**

On approval of the controller, the first examination report (FER) is sent to the address of service of the applicant and intimation to this effect is sent through e-mail. If, however, the report of examiner is lacking in quality parameters the Controller, intervenes in supervisory capacity. The quality parameters suggested by the Controllers becomes mandatory unless proved to be not warranted based on counter- argument by the examiners giving the full justification for the same. The Controller discharges his function as provided in the statute. This also completes the first stage of quality control mechanism.

#### **Application found in order for grant:**

The applicant is required to comply with the official requirements imposed during the examination cycle on or before the date of putting the application in order for grant. The office prepares the file for grant of patent after this date. At times the application is amended on very last date by the applicant in such a case the applicant is required to complete the file submitting freshly typed copy of the amended portion of the complete specification. This procedure is required to be completed simultaneously.

#### **Consideration of the Report by Controller and issuance of FER**

- 🌈 The Controller considers the report of the examiner ordinarily within one month from the date of the receipt of such report and a gist of objections, if any, is sent to the applicant in the form of a report – First Examination Report (FER) - along with the application and specification, if required. If there is no objection to the grant of patent and no pre-grant opposition under Section 25(1) is pending, the patent is granted at the earliest.

- ✚ The FER is sent to the applicant, even when the request for examination has been filed by a person interested. An intimation regarding the issue of FER is given to such person interested.
- ✚ First Examination Report may contain office objections relating to:
  - a. Lack of novelty, inventive step and industrial applicability.
  - b. Subject matter relating to a category, which falls within the purview of Sections 3 and 4.
  - c. Non-fulfillment of any other requirement under the Act.
- ✚ The applicant is required to comply with all the requirements imposed upon him by the Act as communicated through FER or subsequent communication, at the earliest. However, if applicant fails to respond to the FER, within twelve months from the date of issuance of FER, the application is deemed to have been abandoned under Section 21(1). A communication to that effect is sent to the applicant for information.
- ✚ If the response / amendment filed by the applicant do not satisfy the requirements laid down by the Act, the Controller offers an opportunity of hearing and decides the case on merits.
- ✚ When the applicant re-files the documents within twelve months, the application has to be examined in a fresh manner by the examiner. Upon examination, if it is found that the requirements of the Act have been met, the Patent is granted.
- ✚ If the applicant contests any of the objections communicated to him by the Controller or he re-files his specification or other documents, along with his observations as to whether or not the specification is to be amended, an opportunity of being heard is given, if requested by the applicant.
- ✚ After hearing the applicant, the Controller may specify or permit such amendment as he thinks fit and grant the patent. The Controller may refuse to grant the patent unless the amendments so specified are made or any other requirements of the Act and Rules are not complied with.
- ✚ If the Controller differs with the report of the Examiner at any stage of the Examination and Grant Process, he shall record the reasons for such disagreement in the file.
- ✚ No refusal of patent is done without giving an opportunity of being heard under Section 14. An order refusing an application under Section 15 shall be a speaking order. Such an order under Section 15 is appealable before the Intellectual Property Appellate Board.



## **Chapter 10**

### **Examination procedure at amended stage**

Where a complete specification is amended under the provisions of the Act before the grant of patent, the amended specification shall be examined and investigated in like manner as the original specification [Sec. 13(3)].

#### **Exercise of Discretionary Power by the Controller**

- ✚ Before acting adverse to any party, the Controller shall give an opportunity of being heard to the party. The discretionary powers shall be exercised with due care and caution and not in an arbitrary manner. Such reasons shall be taken judiciously and the reasons shall be recorded in the file. However, this will not apply to actions resulting from —deemed|| provisions in the Act and Rules.
- ✚ A party desiring a hearing shall make the request for such hearing to the Controller at least ten days in advance of the expiry of the time-limit specified in respect of the proceeding.
- ✚ Before exercising any discretionary power under the Act or these rules which is likely to affect an applicant for a patent or a party to a proceeding adversely, the Controller shall give such applicant or party, a hearing, after giving him or them, ten days' notice of such hearing ordinarily.

## **Chapter 11**

### **Abandoning, refusal and grant procedure**

#### **Abandoning**

An application is treated as abandoned under section 21 if within the prescribed time line of 12 months the application is not put in order for grant by the applicant. Meaning thereby, that if the applicant has not filed response of Examination reports during the prescribed period under Rule 24B(4) then the application will proceed towards abandonment.

Important points for review before recommending abandonment:

1. FER/SER was sent on the proper address of service.
2. No response of FER/SER has been filed within prescribed time limits as evident from the file tracker module.

#### **Refusals**

If however, the applicant has filed the response to the examination reports, but the examiner and Controller are of the opinion that the official requirements (objections) are not fully complied with the case may proceed for hearing under section 14 and the case may be refused by the Controller if the applicant fails to comply with the official requirements even after providing an opportunity of being heard with speaking order as to the non compliance of requirements by the applicants.

#### **Responding to arguments presented**

In OA/16/2009/PT/DEL [262/2012] controller's order stated that no documents were given regarding the inventive step. But IPAB noted that "... it is seen from the reply dated 17th November, 2008 that the appellant has given his reasons why there is inventive step. It is open to the Controller to reject the contentions but when a specific case has been projected regarding inventive step, it is not open to him to say that no submission was in fact made.

#### **Clarity of text**

In OA/16/2009/PT/DEL [262/2012] IPAB noted "... In the First Examination Report, in objection No. 5, it is stated that the claims are not inventive in view of citations cited in ISR. The ISR only refers to D1 for inventive step and D2 to D4 for novelty. The IPER also in its report has referred

to D1 alone both for novelty and for inventive step. But the order does not indicate why the Controller held that the invention lacks inventive step on the basis of D1 or D2 to D4. We repeat again that as we have done in our judgment in Sankalp Rehabilitation Trust, Mumbai Vs. F. Hoffmann-La Roche AG, Switzerland in OA/8/2009/PT/CH (IPAB Order No. 250/2012) that it is better to describe fully the documents cited before the Controller, at least once in the order that is passed. The IPER, in the body of the report refers to D1, D2 or D4. But it contains a paragraph titled “Cited Documents”, where the documents are described in detail. This is absolutely essential. It is also better to have a heading for each ground on which the patentability is decided, for example, novelty, obviousness, S.3(e) and so on and a finding given with regard to each heading and the finding given against each head, which is dealt in the order. This will go a great deal towards clarity of the order.”

#### **Grants:**

The Patent is granted as expeditiously as possible when

- the application has not been refused by the Controller by virtue of any power vested in him by this Act, or
- the application has not been found to be in contravention of any of the provisions of the Act, or
- When there is no pre-grant representation pending before the grant of Patent or when the Pre-Grant Opposition has been disposed of in favour of the applicant, the date of grant of patent is the date on which the patent is granted by the Controller in the file.
- The patent number is simultaneously generated. As the Patent Office has moved to complete electronic processing, the fact of grant of Patent by the Controller and the Patent Number is reflected on the official website on real time basis.

#### **Consequences of grant**

- On the grant of patent, every patent is allotted a serial number by the electronic system. A Certificate of Patent is generated in the prescribed format and an entry in the e-register is made simultaneously. In the present electronic system, the date of recordal of Patent in the Register of Patents is the same as the date of grant of Patent by the Controller.
- The complete specification as granted is made available to public through official website.
- The application, specification and other related documents are open for public inspection on payment of prescribed fee.

- The fact that the patent has been granted is published in the official journal of the Patent Office.
- On the grant of patent, the patentee is required to pay the accumulated fee within 3 months from the date of recordal of Patent in the Register of Patents, which is now the same as the date of Certificate of Patent.
- A post-grant opposition under section 25(2) can be filed by any person interested within 12 months from the date of publication of grant.
- Every patentee and licensee has to furnish a statement regarding the working of the patented invention on commercial scale in India at regular intervals (not less than six months) in the prescribed format.

## Chapter 12

### **Disposal of post grant opposition**

#### **Post-grant opposition**

- Any person interested can file a Notice of Opposition against the grant of Patent in the prescribed format, in duplicate, within twelve months from the date of publication of grant of patent at the appropriate Office.
- The date of grant of patent is the date on which the Controller grants a patent and since the granting of patent is now only done through electronic module, the date and time of grant is available to the public on a real time basis through the official website. Consequently, any opposition filed after the date of grant will be treated as a post grant opposition.
- The opponent shall state the nature of his interest in the matter.
- Person interested includes a person engaged in, or in promoting research in the same field as that to which the invention relates. It may be an organization that has a manufacturing or trading interest in the goods connected with the patented article or which has a financial interest in manufacturing such goods or which possesses Patents relating to the same subject.
- The post-grant opposition can be filed on the grounds as mentioned in Section 25(2), but no other grounds.
- After receipt of Notice of Opposition, the Controller shall notify the patentee about the fact of receipt of such notice, without any delay.
- A copy of the statement and evidence, if any, shall be delivered to the patentee by the opponent.
- If the patentee desires to contest the opposition, he shall file a reply statement setting out fully the grounds upon which the opposition is contested, and evidence if any, in support of his case within a period of two months from the date of receipt of the copy of opponent's written statement and evidence, if any, and deliver a copy to the opponent.
- If the patentee does not desire to contest or does not file his reply and evidence within two months, the patent shall be deemed to have been revoked and the Controller shall issue the order of revocation of Patent and the fact of revocation is entered in the register of patents.
- After receipt of reply from the patentee, the opponent may file his evidence in reply within one month from the date of delivery to him of a copy of the patentee's reply statement and evidence. Evidence in reply of the opponent shall be strictly confined to the matters in the patentee's evidence. The opponent shall deliver a copy of his reply statement and evidence to the patentee.

- No further evidence shall be delivered by either party, except with the leave or direction of Controller.
- With respect to further evidence filing, either party shall do so before the Controller's notification on the fixation of the date of hearing.
- Where a specification or other document in a language other than English is referred to in the notice, statement or evidence, an attested translation thereof in duplicate in English should be furnished along with such notice, statement or evidence, as the case may be.
- Evidence shall be filed on affidavits as required under Rule 126.
- Exhibits shall be filed as required under Rule 127.

#### **Constitution of Opposition Board**

- After receipt of Notice of Opposition, an Opposition Board is constituted by the Controller, by order, to examine such notice including all the documents filed under rule 57-60 in connection with opposition by the opponent as well as patentee.
- The Board shall submit the report with reasons on each ground taken in the Notice of Opposition after examining all statements, documents and evidence submitted by the parties, as a joint recommendation within three months from the date on which all such documents were forwarded to them.
- The Opposition Board consists of three members with one of them as Chairman.
- The examiner may be a member of the Board. But, the examiner who has dealt with the application for patent during the prosecution proceedings for grant of patent thereon shall not be included as a member of the Board.
- If further evidence is taken on record by the Controller, by an order in writing, the same shall be forwarded to the Opposition Board for their consideration. This shall also apply when such further evidence is taken on record after the receipt of report from Opposition Board.

In **OA/4/2009/PT/CH** IPAB made it clear that whenever the Opposition Board makes recommendations, both the patentee and the opponent are entitled to know the contents of the recommendations before they attend the hearing. IPAB also endorsed the view that the board members may be present in the hearing so that either party can ask question them as to how their findings were arrived at.

### **Hearing in post grant opposition matters**

- After receiving the recommendation of Opposition Board the Controller shall fix without undue delay, a date and time for the hearing of the opposition and inform the parties, at least ten days in advance.
- On receipt of the notice of hearing, if either party desires to be heard, he shall inform the Controller by a notice along with the prescribed fee.
- The Controller may require the members of Opposition Board to be present in the hearing
- The Controller may refuse to hear any party which has not given such notice and fee.
- If either party intends to rely on any Publication at the hearing not already mentioned in the notice of opposition, statement or evidence, he shall give to the other party and to the Controller a notice of his intention to do so, together with details of such publication. Such notice shall be given at least five days before the date of hearing.
- After hearing the party or parties desirous of being heard, or if neither party desires to be heard, then without a hearing, and after taking into consideration the recommendation of Opposition Board, the Controller shall decide the opposition, i.e., he may revoke the patent, or order amendments in the Patent or refuse the opposition and issue a speaking order.
- If amendment of specification or any other document is ordered by the Controller, the patentee shall submit such amended documents to the office within a reasonable time, as directed by the Controller.

In OA/13/2011/PT/MUM IPAB held "in patent cases we cannot ignore the prior art citations even where the additional documents are filled at the appeal stage particularly when they are relevant. However to meet the requirement of natural justice the contesting party shall be given an opportunity to defend and present their argument which was given to the appellant in the present case.

## **Chapter 13**

### **Disposal of post grant amendments**

#### **Amendments after the grant of patents**

- After the grant of patent, the patentee may apply in Form 13 for an amendment of the application for patent, complete specification or any document relating thereto to be amended subject to such conditions, if any, as the Controller thinks fit. Such a request may be filed in Form- 13 with prescribed fee. Such request may also be made for amendment of priority date.
- The request shall state the nature of the proposed amendment, highlighted in an annexed copy along with the reasons. The amendments are allowable only by way of disclaimer, correction or explanation. Such amendments shall be for the purpose of incorporation of actual fact only. Further, no amendment of a complete specification shall be allowed the effect of which would be that the specification as amended would claim or describe matter not in substance disclosed or shown in the specification before the amendment, or the amended claim(s) do not fall wholly within the scope of claim(s) of the specification before the amendment.
- An application for amendment may be published along with the nature of proposed amendment. However, if the nature of proposed amendment is substantive, the application for amendment shall be published. For instance, any application for amending the complete specification or the claims or the application for patent shall be published.
- The amended pages have to be filed in duplicate by the applicant along with duly cancelled original pages.
- Any person interested may file a notice of opposition in Form-14 within three months from the date of publication of the application for amendment. Where such a notice of opposition is filed, the Controller notifies the applicant for amendment.
- After giving an opportunity to the applicant and opponent, if any, the Controller shall dispose off the case. The procedure specified in rules 57 to 63 for post grant opposition for filing of written statement, reply statement; reply evidence, hearing and costs shall apply in this case.
- Amendments allowed after the grant of patent shall be published.
- A leave to amend the complete specification obtained by fraud is a ground for revocation of patent under Section 64.
- If any suit for infringement is pending before a Court or any proceeding for revocation of the Patent is pending before the High Court, the Controller shall not pass any order allowing or refusing the application for amendment.



## **Chapter 14**

### **Review of Controllers' decision (procedure)**

The statute provides for review of the Controller's decision under section 77 of the Patents Act 1970. The applicant need to file Form 24 within the time limits prescribed in Rule 130. The Controller shall act in accordance with the prescribed norms under Rule 130 and decide that matter on the merit of each case. The Controller, in any proceeding before him under the Patents Act, 1970, shall have the powers of a civil court while trying a civil suit under Code of Civil Procedure, 1908 (5 of 1908). The review under section 77 is dealt in the like manner.

#### **Who may file the review petition:**

Any person considering himself aggrieved—

- ✚ by a decree or order from which an appeal is allowed, but from which no appeal has been preferred,
- ✚ by a decree or order from which no appeal is allowed,

#### **Grounds for review:**

- ✚ discovery of new and important matter or evidence which, after the exercise of due diligence was not within petitioner's knowledge or could not be produced by him at the time when the decree was passed or order made, or
- ✚ on account of some mistake or error apparent on the face of the record or,
- ✚ for any other sufficient reason

A party who is not appealing from a decree or order may apply for a review of judgment notwithstanding the pendency of an appeal by some other party except where the ground of such appeal is common to the applicant and the appellant, or when, being respondent, he can present to the Appellate Court, the case on which he applies for the review.

#### **Hon'ble Supreme Court of India on reviews:**

Hon'ble Supreme Court<sup>11</sup> held that "An error which has to be established by a long drawn process of reasoning on points where there may conceivably be two opinions can hardly be said to be an error apparent on the face of the record. Where an alleged error is far from self-evident and if it can be established, it has to be established, by lengthy and complicated arguments, such an error cannot be cured by a writ or certiorari according to the rule governing the power of the superior Court to issue such a writ." The very fact that the Learned Counsel for the appellant had to labour for several hours to make her submissions would show that if there were errors in the decisions, it had to be decided only by a process of reasoning that are not apparent on the face of the records.

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<sup>11</sup> Satyanarayan Laxminarayan Hegde and Ors. vs. Mallikarjun Bhavanappa Tirumale (AIR 1960 SC 137)

**Table Showing the time provided under the Patents Act and Rules**

Sl.	Action	Section	Rule	Form	Prescribed Time
1.	(a) Application for grant of patent, claiming priority date, under Paris Convention/ WTO.	7		1	
	(b) Filing of National Phase application under PCT.		23	1	31 months from the priority date.
	(c) Filing of priority documents claiming priority under Paris Convention/WTO.				
	(d) Filing of Divisional Application.	16		1	At any time before the grant of patent.
	(e) Filing of application for Patent of Addition.	54		1	Date of filing should be the same or later than the mother application.
	(f) Filing of Complete Specification after Provisional Specification.	9(1)		2	Within 12 months

					from the date of filing of the provisional specification.
2.	(a) Submission of Statement and Undertakings regarding foreign applications.	8	12(1) (A)	3	Along with the application or within 6 months from the date of filing of the patent application
	(b) Submission of Statement, when so required by the Controller under Section 8(2)	8(2)	12(3)		Within 6 months from the date of communication
3.	Submission of priority document duly certified by the competent authority. If the priority document is not in English, corresponding in English duly certified.	138	121		Priority document shall be filed along with the application or within 3 months from the date of communication by the controller
	Filing of priority document in case				Priority

4.	of national phase application.		21		document/English translation of the priority document shall be filed within 31 months from the date of priority under PCT regulation or within 3 months from the date of communication by the Controller.
5.	Filing of declaration as to Inventorship of the invention	10(6)	13(6)	5	Along with the application or before the expiration of 1 month, as the Controller may allow on an application made in Form 4, from the date of filing, with fees.
6.	Filing of Proof of Right.	7(2)	10		Within 6 months after the filing of the application.

					<i>Note: For the purpose of this rule 6 months period is to be reckoned from the actual date of filing in India in case of National Phase Application.</i>
7.	Filing of Provisional/Complete Specification		13	2	Immediately along with the application.
8.	Numbering of patent application		11		An application is numbered serially denoting the place where it has been filed and the year, in which is it filed.
9.	Submission of Power of Attorney, if so required.	127 & 132	135	26	Along with the application filing which on invitation before the grant of

					patent.
10.	(a) Publication of application, where complete specification has been filed and no secrecy direction is imposed and application is not withdrawn or abandoned.	11A(1)	24		After the expiry of 18 months from the date of filing or priority whichever is earlier, shall ordinarily be published within 1 month before the expiry of that period.
	(b) Request for Publication	11A(2)	24A	9	Ordinarily 1 month from the date of request for publication.
	(c) Deposit of biological material mentioned in the complete specification	11A(6)			Depository biological material shall be available to the public immediately after publication with the depository institution
	(d) Publication of Grant	43(2)			



	by the Controller		iii)		month from the date of receipt of such report
15.	Submission of report to the Controller by the examiner (to whom the application, specification and other documents have been referred to)	12(2)	24B(2)(ii)		Ordinarily within 1 month but not exceeding 3 months from the date of reference of the application by the Controller
16.	Post dating of the application at the request of the applicant	17(1)			No post dating to a date later than 6 months from the actual date of filing.
17.	Substitution of applicant	20	34	6	Before the grant of patent the relevant documents, such as assignment, agreement (official copy/notarized copy) to be filed.
18.	Potential infringement, reference to the earlier patent required to be mentioned in the specification, provided the validity of the patent	19	33		Within 2 months from the date of communication by the Controller to



	is not contested by the applicant.				the applicant.
19.	Time period for putting the application in order for grant	21	24B (4)		12 months from the date of date of First Examination Report
20.	Consideration of the report of Examiner by Controller, where the specification is required to be amended.	14	28A & 28		Opportunity for hearing by Controller to the applicant by providing 10 days notice, if the applicant contest the objection. The entire proceeding is required to be completed before the expiry of 12 months from the date of FER.
21.	Power of Controller to refuse or grant the application, if the requirement of the Act or any rule has not been complied with, the Controller may refuse or grant after necessary amendment.	15			Entire proceeding is required to be completed before the expiry of 12 months from the date of FER.
22.	Grant of patent after the publication	43	55 (1A)		No patent can be granted before the expiry of 6 months from the date of publication under

					section 11A.
23.	Power of Controller to make amendment in case of anticipation by prior claiming	13 & 15	29		A period of 2 month is allowable for removing the objections by postponing the grant of patent.
24.	<b>Pre-grant opposition</b>	25(1)	55		Any person can file representation, including statement and evidence in support, by way of opposition against the grant of patent, between the date of publication and date of grant.
	(a) Submission of reply statement and evidence by the applicant for patent.	25(1)	55(4)		Within 3 months from the date of notice by the Controller.
	(b) Disposal of the pre-grant opposition, after completion of all formalities.	25(1)	55(6)		Within 1 month from the date of completion of the proceedings, decisions in respect of

					grant/refusal will be issued.
25.	<b>Post-grant opposition along with statement and evidence.</b>	25(2)	55A	7	Any interested person may give Notice of Opposition before the expiry of 1 year from the date of publication of grant of a patent.
26.	(a) Filing of reply statement and evidence	25(2)	58(1)		Reply statement and evidence to be filed by patentee within a period of 2 months from the date of receipt of the copy of the written statement and opponent's evidence.
	(b) Filing of reply evidence by opponent	25(2)	59		Reply evidence to be filed by the opponent with 1 month from the date of delivery of reply statement and evidence.

	(c) Constitution of Opposition Board and it's proceedings	25(3)(b) & 25(4)	56(4)		<p>Recommendation of the Board to be given within 3 months from the date of forwarding of all documents in the post-grant opposition proceedings.</p> <p>Hearing to be fixed to decide the opposition with a 10 days notice to both the parties.</p> <p>Within 3 months from the date of order of the Controller.</p>
	(d) Hearing	25(4)	62(1)		
	(e) Treating of the patent as patent of opponent in case of "Obtaining"	26(1)	63A	12	
27.	Permission to apply for patent outside India	39	71 (1&2)	25	Controller shall dispose the request ordinarily within a period of 21 days from the

					date of request, except in case of inventions relating to defence & atomic energy applications.
28.	Form of patent	43	74		The patent certificate shall ordinarily be issued within 7 days from the date of grant.
29.	Terms of patent	53(1)	81 & 80(1A)	4	The renewal fee to be paid at the expiration of the 2 <sup>nd</sup> year from the date of patent to keep the patent in force or of any succeeding year and the same shall be remitted to the Patent Office before the expiration of the 2 <sup>nd</sup> or the succeeding year and may be extended for a period of 6 months on a request in form 4.

30.	Amendment of application and specification	57	81(3)(b) )	14	Any person interested in opposing the application for amendment shall give a notice of opposition in Form 14 within 3 months from the date of publication of the application.
31.	Application for restoration of lapsed patent	60	84(1)	15	When a patent has ceased to have effect by reason of failure to pay any renewal fee, within the stipulated period the patentee may file an application for the restoration of the patent, within 18 months from the date on which the patent ceased to have effect.
32.	Procedure for the disposal of the restoration of lapsed patent	61	84(2)		Where the Controller is satisfied that a prima facie case

					for the restoration of any patent has not been made out, he shall intimate the applicant accordingly and unless the applicant makes a request to be heard in the matter within 1 month from the date of such intimation, the Controller shall refuse the application.
33.	Opposition to Restoration	61(2)	85(1)	14	The notice of opposition to be filed within 2 months from the date of publication of the restoration.
34.	Power to extend time by the Controller		138(1) & (2)		Save as otherwise provided in the Chapter III of these rules, rule 24B, sub-rule (4) of rule 55 and sub-rule (1A) of rule 80, the time

					<p>prescribed by these rules for doing of any act or the taking of any proceeding there under may be extended by the Controller for a period of 1 month, if he thinks it fit to do so and upon such terms as he may direct.</p> <p>Any request for extension of time made under these rules shall be made before the expiry of prescribed period.</p>
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**Official Notification with regard to Atomic Energy**

**Atomic Energy:**

“Prescribed Substances, Prescribed equipment and Technology ” have been notified by the Government of India, Department of Atomic Energy vide S.O.61(E), published in the Gazette of India (extraordinary, Part II, Section 3, sub-section (ii), dated 20<sup>th</sup> January, 2006. A copy of the Notification is presented below.

*S.O. 61(E).- In pursuance of clauses (f) and (g) of sub-section (1) of Section 2 and Section 3 of the Atomic Energy Act, 1962 (No.33 of 1962) and in supersession of the notifications of the Government of India in the Department of Atomic Energy vide numbers S.O.211 (E) dated the 15<sup>th</sup> March, 1995 and S.O.212(E) dated the 15<sup>th</sup> March, 1995, the Central Government hereby notifies the substances, equipment and technology specified in the Schedule appended hereto as Prescribed Substances, Prescribed Equipment and Technology.*

*Category – 0: Nuclear materials, nuclear-related other materials, equipment and technology.*

OA            *Prescribed substances*

*Note: Any radioactive material in Category OA shall additionally attract the provisions of the Atomic Energy (Radiation Protection) Rules, 2004 made under the Atomic Energy Act, 1962 and the provisions of Section-16 of the Atomic Energy Act,1962.*

*OA1 Source Material*

OA101      *Uranium containing the mixture of isotopes occurring in nature*

OA102      *Uranium depleted in the isotope 235.*

OA103      *Thorium*

OA104      *Any of the foregoing in the form of metal, alloy, chemical compound, or concentrate or any substance.*

OA105      *Any other material containing one or more of the foregoing.*

*Prescribed quantitative limits: as given below and in any period of 12 months:*

- a.      *Uranium (containing the mixture of isotopes in nature) exceeding 100 kilograms.*
- b.      *Depleted uranium (uranium depleted in the isotope 235 below that occurring in nature) exceeding 1000 kilograms.*
- c.      *Thorium exceeding 1000 kilograms.*

OA2              *Special Fissionable Material*

OA201              *Plutonium-239*

OA202              *Uranium-233*

- OA203                      *Uranium enriched in the isotopes 235 or 233*
- OA204                      *Neptunium.*
- OA205                      *Any material containing one or more of the foregoing*
- OA206                      *Such other fissionable material determined by the Central Government from time to time, but the term “special fissionable material “ which does not include source material.*
- Note:                      *Any quantity of special fissionable material is prescribed substance.*
- OA3                              *Other Materials.*
- ‘Other Materials’ means non-nuclear materials for reactors, nuclear related dual-use materials indicate below and such materials as determined by the Central Government from time to time.*
- OA301                      *Deuterium, heavy water (deuterium oxide) and any other deuterium compound, in which the ratio of deuterium to hydrogen atoms exceeds 1:5000, in quantities exceeding 5 kilograms of deuterium in one consignment or 25 kilograms of deuterium in any period of 12 months.*
- OA302                      *Nuclear grade graphite / carbon, having a purity level better than 5 parts per million (ppm) boron equivalent and with a density greater than 1.5 gram/cc in quantities exceeding 30 metric tons in any period of 12 months.*

OA303 *Zirconium with hafnium content of less than 1 part to 500 parts of zirconium by weight (i.e. less than 2000 ppm) in the form of metal, its alloys, compounds, manufactures thereof, waste or scrap of any of the foregoing.*

OA304 *Beryllium, its compound, alloys and its minerals/concentrates including Beryl but excluding:*

- a. *beryllium windows used for x-ray machines and gamma rays detectors and*
- b. *beryl in the form of emeralds or aquamarines.*

OA305 *Lithium enriched in the Lithium-6 (6Li) isotope to greater than its natural isotope abundance (i.e. more than 7.5%) and the products or devices containing enriched lithium such as elemental lithium, alloys, compounds, mixtures containing lithium, manufactures thereof, waste or scrap of any of the foregoing.*

OA306 *Niobium and Tantalum, their metals, alloys and minerals including columbite and tantalite.*

OA307 *Titanium alloys having both of the following characteristics:*

- a. *'Capable of' an ultimate tensile strength of 900 Mpa or more at 293 K (20°);*  
*and*
- b. *In the form of tubes or cylindrical solid forms (including forgings) with an outside diameter of more than 75 mm.*

*Technical note: The phrase 'capable of' encompasses titanium alloys before or after heat treatment.*

OA308 *Tritium, tritium compounds or mixtures containing tritium in which the ratio of tritium to hydrogen atoms exceeds 1 part in 1000, except when utilized in such quantities and for such purposes as for organic labeled compounds, Gas Filled Sources and as Tritiated Water for radiotracer studies.*

OA309 *Hafnium:*  
  
*Hafnium metal, alloys containing more than 60% hafnium by weight, hafnium compounds containing more than 60% hafnium by weight, manufacturers thereof, and waste or scrap of any of the foregoing.*

OA310 *Radium-226:*  
  
*Radium-226 (226Ra), radium-226 alloys, radium-226 compounds, mixtures containing radium-226, manufactures thereof, and products or devices containing any of the foregoing, except medical applicators and a product or device containing less than 0.37 GBq (10mCi) of Ra-226 in any form.*

OA311 *Boron*  
  
*Boron enriched in the Boron-10(10B) isotope to greater than its natural isotopic abundance as follows:*  
  
*Elemental boron, compounds, mixtures containing boron, manufactures thereof, waste or scrap of any of the foregoing.*

OA312 *Helium-3*  
  
*Helium-3 (<sup>3</sup>He), mixtures containing helium-3, and products or devices containing any of the foregoing.*

*Note: A product or device containing less than 1 gm of Helium-3 is excluded.*

OA313 *Alpha-emitting radionuclides:*

*Alpha-emitting radionuclides having an alpha half-life of 10 days or greater but less than 200 years, in the following forms:*

- a. Elemental;*
- b. Compounds having a total alpha activity of 37 GBq per kg or greater;*
- c. Mixtures having a total alpha activity of 37GBq per kg or greater;*
- d. Products or devices containing any of the foregoing.*

*Alpha emitters controlled by this item include:*

<i>Actinium-225</i>	<i>Actinium-227</i>	<i>Americium-242m</i>
<i>Californium-248</i>	<i>Californium-250</i>	<i>Californium-252</i>
<i>Californium-253</i>	<i>Californium-254</i>	<i>Carium-240</i>
<i>Curium-241</i>	<i>Curium-242</i>	<i>Curium-243</i>
<i>Curium-244</i>	<i>Einsteinium-252</i>	<i>Einsteinium-253</i>
<i>Einsteinium-254</i>	<i>Einsteinium-255</i>	<i>Fermium-257</i>
<i>Gadolinium-148</i>	<i>Mendelevium-258</i>	<i>Neptunium-235</i>
<i>Plutonium-236</i>	<i>Plutonium-237</i>	<i>Plutonium-238</i>
<i>Plutonium-241</i>	<i>Polonium-209</i>	<i>Polonium-210</i>
<i>Polonium-208</i>	<i>Radium-223</i>	<i>Thorium-228</i>
<i>Thorium-227</i>	<i>Uranium-230</i>	<i>Uranium-232</i>

OA314 *\*Titanium ores and concentrates (Ilmenite, Rutile and Leucoxene)*

OA315 *\*Zirconium, its alloys and compounds and minerals/concentrates including zircon*

*\*Note: These items (OA314 and OA315) shall remain prescribed substances only till such time the Policy on Exploitation of Beach Sand Minerals notified vide Resolution number 8/1(1)/97-PSU/1422 dated the 6<sup>th</sup> October, 1998 is adopted/revised/modified by the Ministry of Mines or till the 1<sup>st</sup> January 2007, whichever occurs earlier and shall cease to be so thereafter.*

OB *Prescribed Equipment*

OB001 *Nuclear Reactors; associated equipment, components and systems specially designed, prepared, or adapted or used or intended to be used in such reactors as follows:*

- a. Complete nuclear reactors*
- b. Nuclear reactor vessels*
- c. Nuclear reactor fuel charging and discharging machines*
- d. Nuclear reactor control rods and equipment*
- e. Nuclear reactor pressure tubes*
- f. Zirconium tubes and assemblies of tubes in which hafnium to zirconium ratio is 1:500 or less*
- g. Primary coolant pumps*
- h. Nuclear reactor internals*
- i. Heat exchangers (steam generators) for use in the primary coolant circuit of a nuclear reactor*
- j. Neutron detection and measuring instruments for determining neutron flux levels within the core of a nuclear reactor*

OB002 *Plants for processing, production, concentration, conversion or recovery of Prescribed Substances (such as uranium, plutonium, thorium, deuterium, heavy*

*water, tritium, lithium); associated equipment, components and system, specially designed, prepared or adapted or used or intended to be used in such plants including but not limited to:*

- a. Plants for production or concentration of deuterium, heavy water*
  - 1. Water-Hydrogen Sulphide Exchange Towers*
  - 2. Blowers and Compressors for hydrogen-sulphide gas circulation*
  - 3. Ammonia-Hydrogen Exchange Towers greater than or equal to 35m in height with diameters of 1.5m to 2.5m*
  - 4. Tower Internals and Stage Pumps*
  - 5. Ammonia Crackers with operating pressures greater than or equal to 3 MPa*
  - 6. Infrared Absorption Analyzers capable of 'on-line' hydrogen/deuterium ratio analysis*
  - 7. Catalytic Burners for conversion of enriched deuterium gas into heavy water*
  - 8. Complete heavy water upgrade systems or columns therefore*
  - 9.*
- b. Plants for the conversion of uranium*
- c. Plants for the conversion of plutonium*
- d. Tritium facilities or plants, and equipments therefore*
- e. Lithium isotope separation facilities of plants, and equipment therefore.*

*OB003 Plants for reprocessing of irradiated nuclear fuel and equipment, components and systems specially designed, prepared or adapted or used or intended to be used in such plants, including but not limited to:*

- a. Irradiated fuel element chopping machines designed for remote operation*
- b. Dissolvers capable of withstanding hot and highly corrosive for dissolution of irradiated nuclear fuel and which can be removed loaded and maintained.*
- c. Solvent extractors and solvent extraction equipment resistant to the corrosive effect of nitric acid.*
- d. Chemical holding or storage vessels resistant to the corrosive effect of nitric acid.*



e. *Industrial equipment including assemblies and components as follows:*

1. *High density (lead glass or other) radiation shielding windows*
2. *Radiation hardened TV cameras, or lenses therefore*
3. *'Robots' or 'end effectors' specially designed for handling high explosives; and control units therefore*
4. *Remote manipulators that can be used to provide remote actions in radiochemical separation operations or hot cells*

*OB004 Plants for treatment, handling, storage and transportation of radioactive wastes from nuclear reactors or from plants for processing Source Materials or Special Fissionable Material or from nuclear reprocessing plants; irradiated nuclear fuel; Special Fissionable Materials, and equipment specially designed, prepared, adapted, or intended to be used therefor.*

*OB005 All systems, associated equipment, components for separation or enrichment of isotopes of uranium, plutonium, lithium or boron, other than analytical instruments, specially designed, prepared, adapted, used or intended to be used therefor as follows:*

- a. *Gas centrifuges and assemblies and components specially designed or prepared for use in gas Centrifuges*
- b. *Specially designed or prepared auxiliary systems, equipment and components for gas centrifuge enrichment plants*
- c. *Specially designed or prepared assemblies and components for use in gaseous diffusion enrichment*
- d. *Specially designed or prepared auxiliary system, equipment and components for use in gaseous diffusion enrichment.*
- e. *Specially designed or prepared systems, equipment and components for use in aerodynamic enrichment plants*

- f. *Specially designed or prepared systems, equipment and components for use in chemical exchange or ion exchange enrichment plants*
- g. *Specially designed or prepared systems, equipment and components for use in laser-based enrichment plants*
- h. *Specially designed or prepared systems, equipment and components for use in plasma separation enrichment plants.*
- i. *Specially designed or prepared systems, equipment and components for use in electromagnetic enrichment plants.*

*OB006 Plants for the fabrication of nuclear reactor fuel elements, and equipment specially designed or prepared therefore including but not limited to:*

- a. *fully automatic pellet inspection stations specially designed or prepared for checking final dimensions and surface defects of the fuel pellets;*
- b. *automatic welding machines specially designed or prepared for welding end caps onto the fuel pins (or rods);*
- c. *automatic test and inspection stations specially designed or prepared for checking the integrity of completed fuel pins (or rods).*

*Item 'c' typically includes equipment for: 1) x-ray examination of pin (or rod) end cap welds, 2) helium leak detection from pressurized pins (or rods), and 3) gamma-ray scanning of the pins (or rods) to check for correct loading of the fuel pellets inside.*

*OB007 Plants or systems for production, handling, storage and transportation of Radioisotopes in quantities exceeding 100 Curies (3.7 X 10<sup>12</sup> Becquerel).*

*OB008 Neutron generators including neutron chain reacting assemblies and fusion assemblies of all kinds for producing fissile materials.*

*OC Technology*

*Technology and software for the development, production or use of prescribed substances or prescribed equipment specified in OA or OB*

Note: The numbering system followed in this Schedule is in harmony with the numbering system followed in the Special Chemicals, Organisms, Materials, Equipment and Technology (SC) MET) List in Appendix – 3 of Schedule 2 of ITC (HS) Classification.