

## 1.1 PATENTS

The Patents Act, 1970 is a landmark in the industrial development of India. The basic philosophy of the Act is that patents are granted to encourage inventions and to ensure that these inventions are worked on a commercial scale without undue delay.

The word “Invention” has been defined under the Patents Act 1970 as amended from time to time; as

*“An **invention** means a new product or process involving an inventive step and capable of industrial application” (S. 2(1) (j))*

**“New invention” is defined as any invention or technology which has not been anticipated by publication in any document or used in the country or elsewhere in the world before the date of filing of patent application with complete specification, i.e. the subject matter has not fallen in public domain or that it does not form part of the state of the art .**

A patent is an exclusive right granted by a country to the owner of an invention to make, use, manufacture and market the invention, provided the invention satisfies certain conditions stipulated in the law. Exclusivity of right implies that no one else can make, use, manufacture or market the invention without the consent of the patent holder. This right is available only for a limited period of time. However, the use or exploitation of a patent may be affected by other laws of the country which has awarded the patent.

These laws may relate to health, safety, food, security etc. Further, existing patents in a similar area may also come in the way. A patent in the law is a property right and hence, can be gifted, inherited, assigned, sold or licensed. As the right is conferred by the State, it can be revoked by the State under very special circumstances even if the patent has been sold or licensed or manufactured or marketed in the meantime. The patent right is territorial in nature and inventors/their assignees will have to file separate patent applications in countries of their interest, along with necessary fees, for obtaining patents in those countries.

By virtue of the grant of a patent, patentee gets the exclusive rights in his favour that prevent the third parties (not having his consent) from making, using, offering for sale, selling or importing the patented product or process within the territory of grant.

The basic obligation in the area of patents is that, invention in all branches of technology whether products or processes shall be patentable if they meet the three tests of: being new, involving an inventive step, and being capable of industrial application. In addition to the general security exemption which applies to the entire TRIPS Agreement, specific exclusions are permissible from the scope of patentability of inventions, the prevention of whose commercial exploitation is necessary to protect public order or morality, human, animal, plant life or health; or to avoid serious prejudice to the environment. Further, members may also exclude from patentability diagnostic, therapeutic and surgical methods of treatment of humans, animals and plants other than micro-organisms and essentially biological processes for the production of plants and animals.

The TRIPS Agreement provides for a minimum term of protection of 20 years counted from the date of filing. India has already implemented its obligations under Articles 70.8 and 70.9 of TRIPS Agreement.

A comprehensive review of the Patents Act, 1970 was also made and a bill to amend the Patents Act, 1970 was introduced in Parliament on 20th December, 1999 and notified on 25-6-2002 to make the Patents Law TRIPS compatible. India amended its Patents Act again in 2002 to meet the second set of obligations (Term of Patent etc.), which had to take effect from 1-1-2000. This amendment, which provides for 20 years term for the patent, reversal of burden of proof etc., came into force on 20th May, 2003. The Third Amendment of the Patents Act 1970, by way of the Patents (Amendment) Ordinance 2004 came into force on 1st January, 2005 incorporating the provisions for granting product patent in all fields of Technology including chemicals, food, drugs and agrochemicals and this Ordinance has been replaced by the Patents (Amendment) Act 2005 which has been in force now with effect from 1-1-2005.

## **1.2 Conditions to be satisfied by An Invention to be Patentable**

An invention must satisfy the following three conditions of:

- (i)** Novelty
- (ii)** Inventiveness (Non-obviousness)
- (iii)** Usefulness

### **(i) Novelty:**

A novel invention is one, which has not been disclosed, in the prior art where prior art means everything that has been published, presented or otherwise disclosed to the public on the date of patent (The prior art includes documents in foreign languages disclosed in any format in any country of the world). For an invention to be judged as novel, the disclosed information should not be available in the 'prior art'. This means that there should not be any prior disclosure of any information contained in the application for patent (anywhere in the public domain, either written or in any other form, or in any language) before the date on which the application is first filed i.e. the 'priority date'.

### **(ii) Inventiveness (Non-obviousness):**

A patent application involves an inventive step if the proposed invention is not obvious to a person skilled in the art i.e., skilled in the subject matter of the patent application. The prior art should not point towards the invention implying that the practitioner of the subject matter could not have thought about the invention prior to filing of the patent application. Inventiveness cannot be decided on the material contained in unpublished patents. The complexity or the simplicity of an inventive step does not have any bearing on the grant of a patent. In other words a very simple invention can qualify for a patent. If there is an inventive step between the proposed patent and the prior art at that point of time, then an invention has taken place.

**(iii) Usefulness:**

An invention must possess utility for the grant of patent. No valid patent can be granted for an invention devoid of utility.

### **1.3 Patentable Inventions under the Patents Act, 1970**

- a) Art, process, method or manner of manufacture.
- b) Machine, apparatus or other article, Substances produced by manufacture, which include any new and useful improvements of any of them and an alleged invention.
- c) However, inventions claiming substance intended for use, or capable of being used, as food or as medicine or drug or relating to substances prepared or produced by chemical processes (including alloys, optical glass, semiconductors and inter-metallic compounds) are not patentable.

### **1.4 Types of Inventions which are not Patentable in India**

An invention may satisfy the conditions of novelty, inventiveness and usefulness but it may not qualify for a patent under the following situations:

- a) An invention which is frivolous or which claims anything obviously contrary to well established natural laws e.g. different types of perpetual motion machines.
- b) An invention the primary or intended use of which would be contrary to law or morality or injurious to public health e.g. a process for the preparation of a beverage which involves use of a carcinogenic substance, although the beverage may have higher nourishment value.
- c) The mere discovery of a scientific principle or formulation of an abstract theory e.g., Raman Effect.

- d) The mere discovery of any new property or new use of known substance or the mere use of a known process, machine or apparatus unless such a known process results in a new product or employs at least one new reactant.
- 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 rearrangement or duplication of features of known devices each functioning independently of one another in a known way.
- g) A method or process of testing applicable during the process of manufacture for rendering the machine, apparatus or other equipment more efficient.
- h) A method of agriculture or horticulture.
- i) Any process for medical, surgical, curative, prophylactic or other treatment of human beings, or any process for a similar treatment of animals or plants.
- j) Inventions relating to atomic energy.

### **1.5 Term of a Patent in the Indian System**

- (a) Five years from the date of sealing of the patent or seven years from the date of the patent (i. e. the date of filing the complete specification), whichever period is shorter, for an invention claiming the method or process of manufacture of a substance, where the substance is intended or capable of being used as a drug, medicine or food.
- (b) Twenty years from the date of patent in respect of any other patentable invention.

## **1.6 Essential Patent Documents to be submitted**

There are two types of patent documents usually known as patent specification, namely

- (i) Provisional Specification and
- (ii) Complete Specification

A provisional specification is usually filed to establish priority of the invention in case the disclosed invention is at a conceptual stage and a delay is expected in submitting full and specific description of the invention. Although, a patent application accompanied with provisional specification does not confer any legal patent rights to the applicants, it is, however, a very important document to establish the earliest ownership of an invention. The provisional specification is a permanent and independent scientific cum legal document and no amendment is allowed in this. No patent is granted on the basis of a provisional specification. It has to be followed by a complete specification for obtaining a patent for the said invention. Complete specification must be submitted within 12 months of filing the provisional specification. This period can be extended by 3 months. It is not necessary to file an application with provisional specification before the complete specification. An application with complete specification can be filed right at the first instance.

### **(ii) Complete Specification:**

Submission of complete specification is necessary to obtain a patent. The contents of a complete specification would include the following

#### **Title of the invention**

- ❖ Field to which invention belongs.
- ❖ Background of the invention including prior art giving drawbacks of the known inventions practices.
- ❖ Complete description of the invention along with experimental results.
- ❖ Drawings etc. essential for understanding the invention.

- ❖ Claims, which are statements, related to the invention on which legal proprietorship is being sought. Therefore the claims have to be drafted very carefully.

### **1.7 Criteria for Naming Inventors in an Application for Patent**

The naming of inventors is normally decided on the basis of the following criteria:

- a) All persons who contribute towards development of patentable features of an invention should be named as inventor(s).
- b) All persons, who have made intellectual contribution in achieving the final results of the research work leading to a patent, should be named as inventor(s).
- c) A person who has not contributed intellectually in the development of an invention is not entitled to be included as an inventor.
- d) A person who provides ideas needed to produce the 'germs of the invention' need not himself / herself carry out the experiments, construct the apparatus with his/her own hands or make the drawings himself/herself. The person may take the help of others. Such persons who have helped in conducting the experiments, constructing apparatus or making the drawings or models without providing any intellectual inputs are not entitled to be named as inventors.

Quite often difficulties are experienced in deciding the names of inventors. To avoid such a situation, it is essential that all scientists engaged in research should keep factual, clear and accurate record of daily work done by them in the form of a diary. The pages in the diary should be consecutively numbered and the entries made should be signed both by the scientists and the concerned leader.

## 2.7 Where to apply?

Application for the patent has to be filed in the respective patent office as mentioned below. The territorial jurisdiction is decided based on whether any of the following occurrences falls within the territory:

- a) Place of residence, domicile or business of the applicant (first mentioned applicant in the case of joint applicants)
- b) Place from where the invention actually originated.
- c) Address for service in India given by the applicant when he has no place of business or domicile in India.

A foreign applicant should give an address for service in India and the jurisdiction will be decided upon that. An applicant (Indian or foreigner) also can give his Patent Agent's address as address for serving documents, if he/she so wishes.

**Table: 2.1 Various Patent Offices in India**

Patent Office	Territorial Jurisdiction
Mumbai	States of Gujarat, Maharashtra, Madhya Pradesh, Goa, Chattishgarh; Union territories of Daman and Diu, and Dadra and Nagar Haveli
Delhi	State of Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan, Utter Pradesh, Uttarnchal, National Capital Territory of Delhi and Union Territory of Chandigarh
Chennai	States of Andhra Pradesh, Kerala, Karnataka, Tamil Nadu; and Union Territories of Pondicerry and Lakshdweep
Kolkata (Head Office)	Rest of India



## **2.8 How to apply ?**

### **Steps Involved in Obtaining a Patent**

- o To file an application for patent accompanied with either a provisional specification or a complete specification
- o To file complete specifications , if provisional application was submitted earlier
- o Examination of the application by patent office
- o Acceptance of applications and publication in the gazette of accepted applications
- o Responding and satisfactorily overcoming the opposition/objections , if any, to the grant of patent
- o Sealing of patent

Application for patent (Form 1) in duplicate should be accompanied by the documents as indicated below. The fee (Rs.1000/- for natural citizen of India or Rs.4000 /- for other than a citizen) can be paid within one month. Other details of the fee payable for different purposes are given in the Appendix -3. The details about various applicable forms for filing patents are given in the Appendix – 4.

- a) Application for Grant of Patent (Form 1)
- b) Provisional or Complete Specification (Form 2) and drawings (if any) in duplicate
- c) Statement and undertaking regarding foreign filing details in respect of the same invention (Form 3)
- d) Declaration as to Inventorship (Form 5) (In the case of a Convention Application and PCT National Phase Application and filing Complete after Provisional)
- e) Priority document (if it is a Convention Application)
- f) Power of Attorney (Form 26) (if the application is made through a patent agent)
- g) Proof of Right if the application is made by the assignee (Proof of right to apply can be produced either in the body of the application (Endorsement in Form1) or by way of a separate assignment deed.

## 2.9 Why ‘Provisional’ Specification ?

When the applicant finds that his invention has reached a presentable form, then he may prepare a disclosure of the invention in the form of a written description and submit it to the patent office. This disclosure is called a Provisional Specification. Application for *Provisional Specification has to include the nature of the invention. This gives a priority to the applicant over any other person who is likely to file an application for patent in respect of the same invention being developed concurrently in some other part of the world.*

Immediately on receiving the provisional specification the patent office accords a filing date for the application and gives a period up to twelve months for filing the Complete Specification during which the applicant can fully develop his invention.

## 2.10 Complete Specification

Complete Specification is a techno-legal document that fully and particularly describes the invention and the best method of performing it. It should start with a preamble “The following specification particularly describes the nature of this invention and the manner in which it is to perform.” It should contain the following in not more than 30 pages beyond which each page is chargeable as given in the first schedule.

- **A Title**

The title should give a fair indication of the art or industry to which the invention relates. It should be brief and as precise and definite as possible. The following are not allowable in the title: — a) The inventor’s name b) The word ‘Patent’ c) Words in other languages d) The abbreviation “etc.” e) Fancy words, e.g., “Wash Well Soap”, “Universal Rest Easy Patent Chair”.

- **Field of the invention.**

The description should preferably begin with a short general statement of the invention so as to show its *scope*, and to indicate briefly the subject matter to which the invention relates, *e.g.* “This invention relates to . . . . .”

- **State of the Art in the Field**

This part should indicate the status of the technology in the field of invention with reference to experiments going on in the field, patents and pending patent applications in the specific art with emphasis on the ‘**prior art**’ relevant to the invention. When the invention relates to an improvement on an existing apparatus or process a short statement of ***closest prior art*** may also be given.

- **Object of the invention (Problem & Solution)**

The purpose is to clearly bring out the necessity of the invention. It shall clearly specify the technical problems associated with the existing technology and the proposed solution, highlighting the obvious difference between the claimed invention and the prior art. The solution sought by the invention should be clearly brought out with statements like “It has already been proposed . . . . .” followed by the objects which the invention has in view *e.g.* “The principal object of this invention is . . . . .”, “Another object of this invention is . . . . .”, “A further object of this invention is . . . . .” etc.

- **Statement of invention**

The description should include a statement of invention before giving the details of the invention and the method of performing it. The statement should clearly set forth the distinguishing *novel features* of the invention for which protection is desired. This part is intended to declare the different aspects of the invention *verbatim* with the claims and complements to the omnibus claim in situations of infringement proceedings.- It usually starts like “Accordingly the invention provides an apparatus consisting of ----- which is characterized in that -----“. Other aspects and processes if any also can be stated *e.g.* “There is also provided a method for performing -----“ etc.

- **Detailed description of the invention with reference to the drawings.**

The details of the invention described should be sufficient for an average person skilled in the art to perform the invention by developing the necessary technical **know how** by himself. It can include examples/drawings or both for clearly describing and ascertaining the nature of the invention. Sufficient number of examples can be appended to the description especially in the case of chemical inventions. The following terms are somewhat vague, and their use should be avoided from the description as far as possible: — “Special”, “design”, “suitable”, “etc”. “Whereby”, “if desired”, “and/or”, “customary methods”, “known methods”. Terms in other languages, if any, used in the description should be accompanied by their English equivalents. The use of vague slang words and colloquialisms is objectionable and should be avoided.

- **Scope and/or Ambit of the Invention**

This part of the specification should bring out the areas of application of the invention and the preferable use of the invention. The applicant can substantiate the industrial applicability of the invention in this part and call for the protection against duplication of the invention in the related fields by specifying the scope and ambit. *The advantages of the invention also can be described in this part of the specification.*

- **Claims**

The description in the Complete Specification need to clearly and succinctly state the “Claims” preceded by the prescribed preamble, “I claim” or “We claim”, as the case may be. It shall preferably start from the next page after the full description of the invention with the claims serially numbered. The purpose of the statement of Claims is to highlight with conciseness, precision and accuracy as to how much of what is described in the specification has been sought to be protected, implying thereby that what is not claimed is open to public use. *The claim or claims 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.*

Statement of the form given immediately below is *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.

## **2.14 Revocation of Patents**

**I.** A Patent may be revoked by High Court on any of the grounds stated hereafter, at any time during the life of the patent.

- i) On the petition by any person interested or
- ii) On the petition by the Central Government by the Appellate Board
- iii) On a counter claim by the defendant in a suit of infringement.

In a suit for infringement under Sec. 104 the defendant's counter-claim for revocation of a patent, the High Court may revoke a patent without any separate petition for revocation.

## **II. Grounds for Revocation**

The following are the grounds of opposition

- a) Invention claimed is the subject of prior grant
- b) Patentee not entitled to the patent
- c) Patent was wrongfully obtained by a person other than the person entitled:
- d) Subject of a claim is not an invention
- e) Invention is "lacking in novelty with regard to prior knowledge or prior use
- (f) Invention is obvious or does not involve inventive step having regard to prior knowledge or prior use
  
- g) Invention is not useful.
- h) Invention is not sufficiently described.
- i) Claim not clearly defined and not fairly based.
- j) Patent was obtained by false suggestion or representation.

- k) Subject of claims not a patentable invention.
- l) Claimed invention was secretly used before the priority date.
- m) Failure to disclose information regarding Foreign Application.
- n) Non-compliance of secrecy direction.
- o) Leave to Amendment of specification obtained by fraud.
- p) Specification Wrongly Mentioning or Not Disclosing Geographical Origin.
- q) Inventions is Anticipated by traditional knowledge