

#### **Patents**

- A patent is an exclusive right granted for an invention, which is a product or a process that provides, in general, a new way of doing something, or offers a new technical solution to a problem.
- The patent allows the inventor exclusive rights to the invention, which could be a design, process, an improvement, or physical invention such as a machine.
- The word "patent" is referred from a Latin term "patere" which means "to lay open," i.e. to make available for public inspection

#### **Patents**

- A patent provides protection for the invention to the owner of the patent. The protection is granted for a limited period, generally 20 years.
- A patent is also available for improvement in their previous Invention.
- Patent protection means that the invention cannot be commercially made, used, distributed or sold without the patent owner's consent.

## Types of patents

There are mainly three types of patents:

 Utility patents - issued for any process, machine, article of manufacture, or compositions of matters, or any new useful improvement. In general, this type of patent protects the way an item is used or works.

#### **Examples:**

Machines (e.g. something composed of moving parts, such as engines or computers)

Articles of manufacture (e.g. brooms, candleholders)

Processes (e.g. business processes, software)

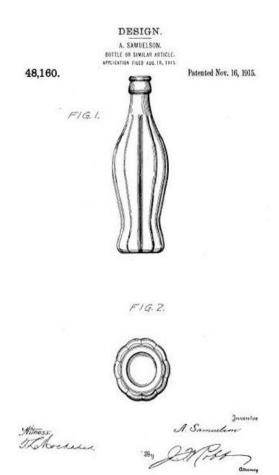
Compositions of matter (e.g. pharmaceuticals)

## Types of patents

- Design patents issued for a new, original, and ornamental design for an article of manufacture.
- Design patents include ornamental designs on jewellery, automobiles or furniture, as well as packaging, fonts and computer icons (such as emojis).
- In general, this type of patent protects the appearance of an item.

#### Example:

Some famous **design patent** objects include the original curvy Coca-Cola bottle (1915) and the Statue of Liberty (1879)



US design patent D48,160 for the original Coca-Cola bottle.

## Design Patents vs. Utility Patents

- The essential distinction between design and utility patents is the difference in protecting "How it looks" (design) vs. "How it works" (utility).
- If you're concerned about competitors copying the appearance of your concept, then apply for design patents.
- If you want to protect the functional features of your concept, then apply for utility patents.

## Types of patents

- Plant patents issued for asexually reproduced, distinct, and new variety of plants.
- A plant patent is an intellectual property right that protects a new and unique plant's key characteristics from being copied, sold or used by others.
- A plant patent can help an inventor secure higher profits during the patent protection period by preventing competitors from using the plant.

Examples of plant patents include:

- a new & distinct cultivator of African violet (#5,383),
- a variety of almond tree (#5,382),
- a chrysanthemum plant named Organdy (#5,278)

#### CRITERIA FOR PATENTABILITY

- Novel- the invention must be new and not known to public before filing.
- Inventive Step- A feature of an invention that involves technical advance as compared to the existing knowledge that makes the invention not obvious to a person skilled in the art.
- Industrial application- Capable of being made or used in an industry.

an patent act,1970 are called Non-patentable inventions SECTION-3 (A)

- An invention, that is frivolous or that claims anything obviously contrary to well established natural law.
  - Inventions which cannot be granted patent under section-3 of India Example:
    - Machine that gives more than 100% performance.
    - Perpetual machine.

#### SECTION-3 (B)

An invention, the primary or intended use of which would be contrary to law or morality or injurious to public health.

#### Example:

The Oncomouse, genetically modified to develop cancer for the purposes of medical research is not patentable because it may be harmful for public health.

#### SECTION-3 (C)

The mere discovery of a scientific principle or the formulation of an abstract theory or discovery of any living thing or discovery of non–living substance occurring in nature.

- Newton's Laws.
- Discovery of micro-organism.

#### SECTION-3 (D)

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.

- New use of Aspirin for heart ailments.
- Mere new uses of Neem.

#### SECTION-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.

- Combiflam[Paracetamol (Antipyretic) + Brufen (analgesic)].
- Solution of sugar and color additives in water to form a soft drink

#### SECTION-3 (F)

The mere arrangement or rearrangement or duplication of known devices, each functioning independently of one another in a known way.

- A Bucket fitted with torch.
- An Umbrella with fan.
- A Clock and radio in a single cabinet.

SECTION-3 (H)

A method of agriculture or horticulture.

#### Example:

- Cultivation of algae
- Producing new form of a known plant
- Preparation of an improved soil.

But Agricultural Equipments are patentable.

#### SECTION-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.

- Removal of cancer tumor.
- Removal of dental plaque and carries.
- Surgical processes.

#### SECTION-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.

- Clones and new varieties of plants.
- A process for production of plants or animals, if it consists entirely of natural phenomena such as crossing or selection i.e, Essentially biological Process.

#### SECTION-3 (K)

A mathematical or business method or a computer program per se or algorithms.

- Computer program by itself or as a record on a carrier, But combination of hardware and software is patentable.
  - Online chatting method.

#### SECTION (L)

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

#### Example:

These subject matters fall under the copyright protection.

#### SECTION-3 (M)

A mere scheme or rule or method of performing mental act or method of playing game.

- Method for solving a crossword puzzle
- Method of learning a language

SECTION (N)

A presentation of information.

#### Example:

- spoken words
- symbols , diagrams

SECTION-3 (O)

Topography of integrated circuits.

#### Example:

Mask works circuits layout

#### SECTION (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.

#### Example:

Turmeric.

#### **SECTION-4**

Inventions relating to atomic energy not patentable. Example:

• Inventions relating to compounds of Uranium, Beryllium, Thorium, Plutonium, Radium, Graphite, Lithium are not patentable.

## Patent Applications

A patent application is a request pending at a patent office for the grant of a patent for an invention described in the patent specification and a set of one or more claims stated in a formal document, including necessary official forms and related correspondence.

To obtain the grant of a patent, a person, either legal or natural, must file an application at a patent office with the jurisdiction to grant a patent in the geographic area over which coverage is required.

## Types of Patent Applications in INDIA

- 1. Provisional Application
- 2. Ordinary Application Or Non-provisional Application.
- 3. Conventional Application
- 4. PCT- International Application
- 5. PCT-National Application
- 6. Application for Patent of Addition
- 7. Divisional Application

### Provisional Application

- Provisional Application is a non-final, preliminary application which is filed before the patent office to claim priority.
- This application is usually filed when an invention requires additional time to improve upon.
- A complete specification should be filed within 12 months from the date of filing of provisional application.
- This application acts as a proof that the inventor had the concept and idea of the invention at the time of filing of provisional specification.

# Ordinary Application Or Non Provisional Application

- Non Provisional Application is accompanied by a complete specification which is a techno-legal document.
- Complete specification should describe the invention in-depth and it should also disclose the best known method of carrying it out and necessarily end with one or more claims which define the scope of the invention.

Complete specification can be filed in 2 ways

- Direct filing- filed first directly with the Indian Patent office without filing any corresponding provisional specification
- Subsequent filing- filed subsequent to the filing of corresponding provisional specification and claiming priority from filed provisional specification.

# Ordinary Application Or Non Provisional Application

Complete specification should essentially contain the following:

- Title
- Preamble to the invention
- Technical field of the invention
- Background of the invention
- Objects of the invention
- Statement of the invention
- Brief description of the drawings
- Detailed description of the invention
- Claims
- Abstract
- Drawing / diagram / flow-chart

## **Conventional Application**

- An application which claims the priority of another application filed in one or more of the convention countries in known as a convention application.
- Whenever an application is filed in a convention country (basic application), the applicant has to file in India within 12 months from the date of filing of basic application.
- If applications are filed in two or more countries then the applicant has to file in India within 12 months from the date of filing of earliest application.

## PCT- International Application

- The Patent Cooperation Treaty assists applicants in seeking patent protection internationally for their inventions.
- By filing one international patent application under the PCT, applicants can simultaneously seek protection for an invention in 148 countries throughout the world.
- PCT application does not provide for the grant of an international patent, it simply provides a streamlined process for the patent application process in many countries at the same time.

## **PCT-International Application**

An Indian applicant can file PCT application in 3 ways:

- Filing in Indian Patent office (IPO) acting as receiving office.
- •Filing directly in the International Bureau of WIPO after getting foreign filing permit from IPO.
- Applicant can file in IB of WIPO after 6 weeks and within
   12 months of filing of application in India.

There is said to be an *international phase* and a *national phase* to the PCT process.

## **PCT-National Application**

- PCT-National Application : The national application follows the international phase.
- It is necessary for an applicant to file a national phase application in each designated country, where protection is sought for, within the time prescribed under PCT, i.e., within 30 months from the priority date.
- For the National Phase Application, the title, description, drawings, abstract and claims as filed in the International Application under PCT shall be taken as the Complete Specification.
- All other formalities that are required for filing and processing an ordinary patent application shall apply to a National Phase Application.

## Application for Patent of Addition

- When an applicant comes up with an improvement or modification of the invention described or disclosed in main application for which he has already applied for or has obtained a patent, the applicant may make an application for Patent of Addition.
- A Patent of Addition shall be granted only after the grant of the main or Parent patent.
- There is no need to pay separate renewal fee for the Patent of Addition during the term of the main patent.
- A patent of addition shall be granted for a term equal to that of the patent for the main invention and expires along with the main patent.

## **Divisional Application**

- When an application made by applicant claims more than one invention, the applicant on his own or to meet the official objection may divide the application and file two or more applications, as applicable for each of the inventions. This type of application, divided out of the parent one, is called a Divisional Application.
- The priority date for all the divisional applications will be same as that claimed by the Parent Application.
- The term of patent for a divisional application shall be twenty years from the date of filing of main application

## **Patent Registration in India**

The complete patent registration process involves a series of steps which are to be mandatorily followed to get a patent in India.

## Checking the patentability of the invention by performing a search

Before filing a patent application in India, one should perform a detailed patentability search to determine whether a patent for it will be available or not.

http://ipindiaservices.gov.in/publicsearch you can use the link to conduct the patentability search.

## Stages of Patent Application in India 1. Filing the patent application

NO	Stages of the patent process	Form No.
1.	Application for grant of patent	Form 1
2.	Provisional/complete specification	Form 2
3.	Statement and undertaking under section 8 (this is only required where a patent application is already filed in the country other than India)	Form 3
4.	Declaration as to inventorship	Form 5
5.	Forms submitted only by start-ups and small entities.	Form 28

## 2. Publication of patent application

- Patent application filed with the Indian patent office will be published in the official patent journal.
- This is generally done after 18 months of filing the application.
- In case one wants to get it published earlier, he can make a request in form 9 for early publication.

## 3. Examining of patent application

- Every application filed for protection will be examined before a patent is finally granted.
- Once the application is filed, it is transferred to the patent officer who will examine the application to ensure the same is in accordance with the patent act and rules.
- A thorough search is conducted by the officer where he/she analyses the relevant technology in depth and the objections, if any, will be communicated.
- The report issued in this case is called the First Examination Report(FER).

## 4. Grant of patent

 The patent is granted once all the objections raised by the officer are resolved.

Fees once paid in respect of any proceeding shall not ordinarily be refunded irrespective of whether the proceeding has taken place or not:

A refund is initiated only if an applicant withdraws his request for examination before the first statement of objection is issued. Please note that this refund is only to the extent prescribed in the First Schedule.

## Term of patent

 On the term of patent protection, according to the TRIPS Agreement, the term of protection available shall not end before the expiration of a period of 20 years counted from the filing date.

#### Patent Offices in India

- The patent office is headquartered at Kolkata with branches in Chennai, New Delhi and Mumbai.
- Based on the address of applicant, he can file application for patent in appropriate patent office for his region.
- Patents can be files online by visiting the official website of Indian Patent office.

https://ipindia.gov.in/

## Types of Patent Documents

There are mainly two types of Patent documents usually known as patent specification.

#### 1. Provisional Specification

- A provisional specification reveals the invention for which the patent is sought
- A provisional patent application must be followed by a complete specification within 12 months from the date of filing the provisional specification.

#### 2. Complete Specification

- Submission of complete specification is necessary to obtain a patent.
- A complete patent specification discloses the details of the invention for which the patent protection is sought.
- The legal rights in a patent are based on the disclosures made in the specification.

## **Provisional Specification**

The main elements of a Provisional Patent Specification are:

- Title of the invention
- A written description of the invention
  - Description of the invention starts with preamble 'The following Specification describes the invention.'
  - The description contains
    - The field of invention and containing the background of the invention,
    - Object of the invention and statement of the invention.
- Any necessary drawings
- Provisional Specification does not need a detailed discussion of prior art, the invention's objectives and advantages, or alternative embodiments of the invention.
- Claims are not required for a Provisional Specification.

## Complete specification

The complete specification has following elements:

- Title of Invention
- Field of Invention
- Background
- Summary of Invention
- Brief description of drawings
- Description of invention
- Examples if any
- Specific embodiments if any
- Abstract
- Claims
- Drawing / diagram / flow-chart