

Fundamentals of IPR & Patents

Unit 1

- Today's knowledge based industrial environment.
- Intellectual property rights include,
 1. Patents
 2. Designs
 3. Copyrights
 4. Trademarks
 5. Trade secrets
 6. Geographical Indications
- Providing foundation for building & extending markets for new technologies.



- IPR- Introduction
 - Intellectual property
 - Need for protection of intellectual property
 - WIPO
 - Intellectual property rights and development
 - Rationale of protection
 - TRIPS Agreement
 - **Patents** : – Introduction – Patentable and Non-patentable Invention
 - Types of patent applications
 - Guidelines for registration of patent
 - Patent filing
 - Grant of patent – types of patent documents.
-
- IPR help to maintain competitive edge ,and survival of industry.
 - Right to market and protect their product.
 - IP shares many characteristics of real & personal property.
 - IPR allow IP to treated as an asset, that can be bought, sold, or licensed.
 - IP laws enable owner, inventor and creators to protect their property from unauthorized users.
 - Proprietor can use their property as wish (Exclusive rights)and other can use it with only authorisation.
 - Three kind of property,
 1. Movable property (Car / Camera)
 2. Immoveable property (Building)
 3. Intellectual property.



Intellectual Property:

- It is the creation of the human mind, the human intellect.
- Intellectual property is an asset.
- Legal right to the asset- so others need consent to use.



Need for protection of intellectual property :

- Protect IPR from **infringement**. (violations)
- Rationale for protection of IPR are, it is **related to new technology, new product, new idea, and evolution of knowledge**.
- IPR are needed to **maintain the competitive edge of any industry**.
- IPR **impart success to the business by creating and preserving exclusive markets**.

- IP become **significant component of world trade**.



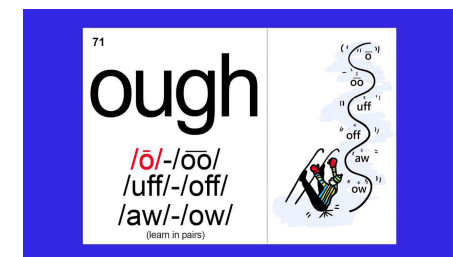
- Cost of R & D rising - **protect IPR to get reasonable return on investment & reduce the risk and uncertainty**.



- Provide **encouragement for further research and investment in R & D- help to create new idea and product- bring economic growth and social benefits**.
- IP are emerging as **new wealth and power of nations- new global currency**

WIPO defined what should be the nature of IP.

1. Inventions in all fields of human endeavour.
2. Scientific discoveries.
3. Industrial designs.
4. Trade marks, service marks, and commercial names and designations.
5. Literary, artistic and scientific works.
6. Performances of performing artists, phonograms.



WIPO (World intellectual property organization)

- An UN agency based in Geneva.
- International organization promoting the use and protection of IP of the human spirit.
- Helps to create real wealth for nations.
- Core activities includes:
 1. Development of international IP laws and standards
 2. Delivering global IP protection service.
 3. Encouraging the use of IP for economic development.

INTELLECTUAL PROPERTY:

- IPR is general term covering patent, copyright, trademark, industrial design, Geographical indications, Protection of layout design of IC chips, Protection of undisclosed information (trade secrete).

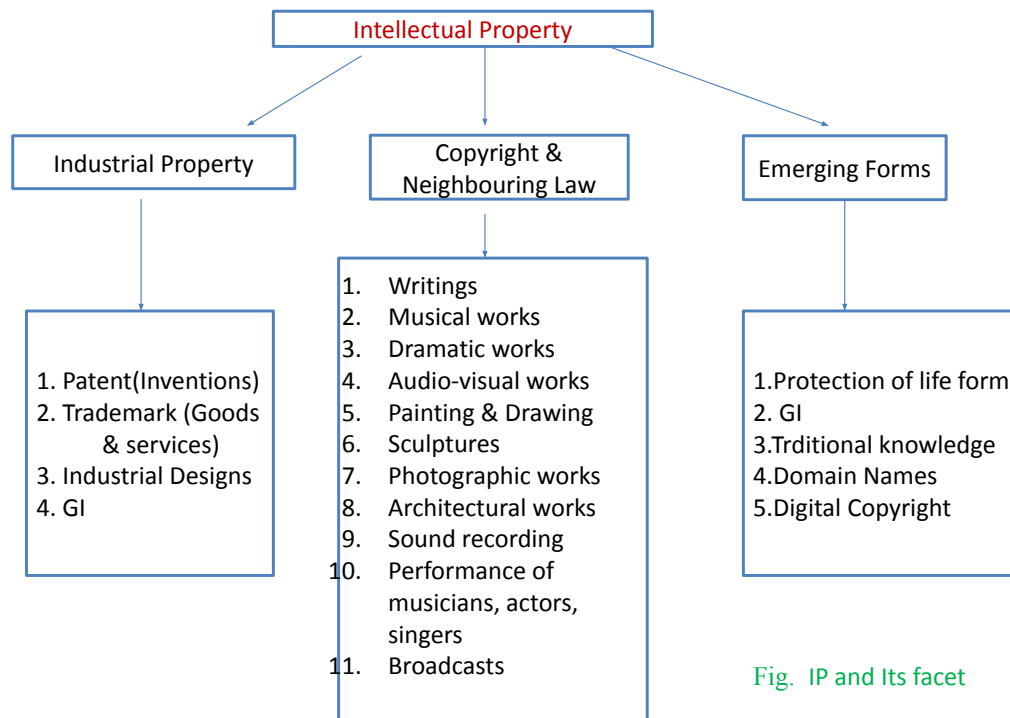
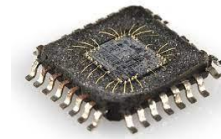
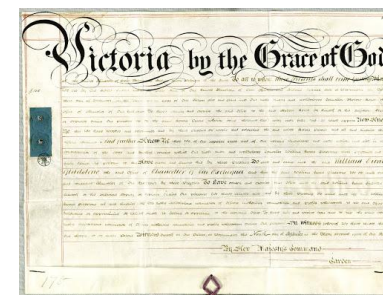


Fig. IP and Its facet

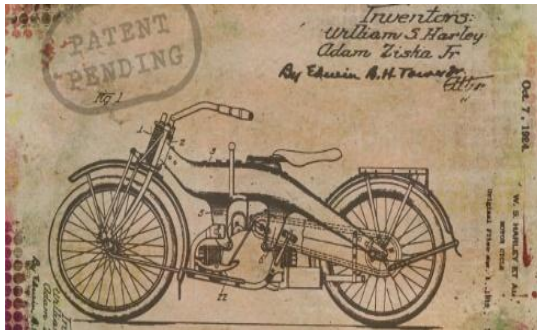
- Industrial property can be clarified as,
 1. Inventions (i.e. patents)
 2. Trademark (i.e. Goods and services)
 3. Industrial designs
 4. Geographical indications

Patent:

- From Latin term “Litterae Patentes” – open letter



- Grant of some privilege, property or authority made by government of the country to one or more individuals.



- The instrument by which such grant is made is known as “Patents”.
- A patent is a monopoly right to the exclusive use of an invention, granted to the inventor or his assignee.

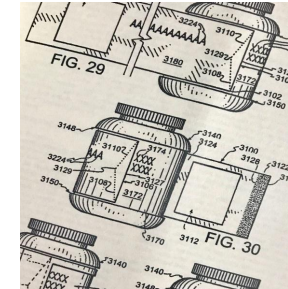
- Patent is an exclusive right for a limited period of time by the government to the patentee, in exchange of full disclosure of invention, for making, using, selling the patented product or process or authorizing others to do.
- Patent encourage inventions by promoting their protection.
- After publishing, the copy of patent is available to public for inspection.

Trademarks(Goods and Services):

- Goods need some identification during selling.
- Manufacturer wants their products to be distinctively identified to assume or assure quality, utility, price.



- Right is granted only for a limited period of time known as **term of the patent**.
- Right may cease, if not keep alive by payment of **renewal fees**.
- Submit the application to patent office by disclosing the complete inventions in the form of complete specifications.



- This complete specification is published by the patent office upon patent granted.

- It helps to **attach distinctiveness to the goods** from those offered for sale by others.

- Word mark in the form of a label or sum.

or



- Trademark is a visual representation attached to goods for the purpose of indicating their trade origin.**

E.g. KODAK,



- Where trademark is used as in connection with services, it may be called “Service mark”

Industrial Designs:

- Industrial design is an outcome of inventive activity, initially mentally conceived and then draw it, followed by giving some concrete shape to the new idea in the design and finally contriving a method for mass manufacturing the same, to put forth a product in the market.



- To be registered as a design, it must meet some requirements
 1. Design must be new.
 2. Original and have individual character.

Geographical Indications:

- Qualities and characteristic of certain goods attributes to some geographical locations.



- “As produce of certain region”.
- Only associations can apply for geographical indications.

- Handcrafts not under industrial design protection.



- Product to which an industrial design is applied is “an article of manufacture or that it can be replicated by industrial means”

- Geographical reputation was painstakingly maintained by the master of that region.
- Handed over from one generation to the next for centuries.
- Through GI , give protection for the brand of the region for its very own uniqueness.



Kasargod DRAWF

Copyright and Neighbouring Law:

- Exclusive right granted by law for a certain term of years to an author, composer, etc.. to print, publish, and sell copies of original work.
- Role of copyright act:
 - Give the owner the exclusive right to do or authorize others to reproduce the work in copies .
 - To prepare derivative works based upon the work.
 - To distribute copies of work to public via sale or transfer of ownership.
 - To perform the work publicly (literary, musical, dramatic, choreographies, digital audio transmission of sound records)

Emerging Forms:

a) Traditional knowledge:-

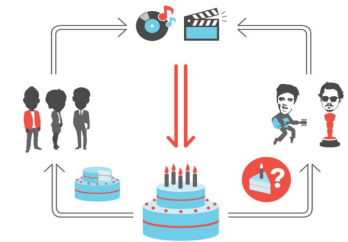
- Traditional knowledge, indigenous knowledge and local knowledge generally refer to knowledge systems embedded in the cultural traditions of regional, indigenous, or local communities.
- They are matured longstanding traditions
- Practices of certain regional, indigenous or local communities.



- Copyrights protects all creations of the human mind whatever their form or merit and regardless of the audience they are destined for.
- Protection is generally immediate and no formal procedure is required as long as the piece of work is original.

Neighbouring Rights:

- Also known as rights neighbouring to copy right.
- Created for three categories of people who are not technically authors.
 1. Performing artists
 2. Producers of phonogrammes
 3. Those involved in television and broadcast



- Traditional knowledge has been orally passed for generations.
- Traditional knowledge are expressed through stories, legends, folklore, rituals, songs and laws.
- IP laws to preserve, protect and promote traditional knowledge.
- 3 approaches to protect it,
 1. protecting traditional knowledge as a form of cultural heritage.
 2. As a collective human right.
 3. By WIPO & WTO, unique (sue generis) measures to protect it.
- Traditional knowledge digital library (TKDL)
 - In India, to protect traditional knowledge.

- To safeguard the sovereignty of traditional knowledge.
- Protect it from being misused by obtaining patent on non-original innovations.

E.g. Turmeric and basmati patent granted by USA patent office.

Neem patent granted by Europe patent office.

- TKDL consist of inter disciplinary members from Department of AYUSH, Medicine & Homeopathy.
- At 1999
- It involves documentations of the knowledge available in public domain on traditional knowledge from the existing literatures related to Ayurveda, yoga, unani, siddha in digitalized format.
- In 5 international languages

Intellectual property rights and development :

- IPR became economically and politically important for developing countries after the TRIPs agreement.
- TRIPs:- Trade Related Aspects of Intellectual Property Rights.
- TRIPs evolved during **Urugaury Round of negotiations** in 1994.
- TRIPs incorporated IPRs into multilateral trading system.
- Pervasive role in people's lives and society.
- Covering Education, health, trade, industrial policy, traditional knowledge, IT and media infrastructure.

Digital Copyright:

- Advances of digital technologies.
- Protecting Intellectual Property on the Internet.
- Entire information to be generated, altered.

Domain Names:

- Domain name in the online = trade name in offline.
- It serve to identify the goods/ service provided by the company.
- Internet used to sell product and service
- Web address contain domain name.
- Domain name has legal protection equal to trade marks,

Rationale of protection :-

- Intellectual property can be ideas, or expression or devices.
- Like moveable and immoveable property.
- IP are efforts by one or more human, with or without using equipment or machines.
- Payment for the product of their labour or labour itself.
- Using IP , create cheap , multiple copies of work.
- Rewards for intellectual effort and protected from free riders.



TRIPS agreement:

- This agreement made protection of IP an enforceable obligation of the member states of the WTO.
- Objective was to reduce distortions and impediments to international trade.
- Measures and procedures to enforce intellectual property rights do not themselves become barriers to legitimate trade.

About TRIPs.....

- *The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) is an international agreement administered by the World Trade Organization*
- *TRIPS is the most important and comprehensive international agreement on Intellectual Property rights*
- *It was formed at the end of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) in 1994.*
- *The TRIPS agreement introduced intellectual property law into the international trading system for the first time*

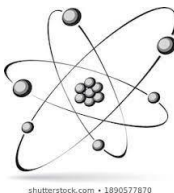
Introduction to Patent:

- Patent is an intellectual property right relating to inventions.
- It is the grant of exclusive right,
- For limited period, provided by gov to that patentee,
- In exchange of full disclosure of invention,
- For excluding others from making , using, selling ,importing the patented product or process producing that product for those purpose.

- It encourage inventions by promoting protection and utilization.
- Promotion of technological innovation and dissemination of technology.
- Patent is territorial. Patent obtained in one country is not enforceable in other country.



- Separate application for each country.
- Inventions should satisfies certain conditions stipulated in the law.
- Grant of patent may affected by other laws of the country.



- Since patent is a property right, hence can be gifted, inherited, assigned, sold, or licensed.
- Only state can revoke particular patent under special circumstances.
- After the expiry of the duration of patent, anybody can make use of the invention.
- Patent application can be filled alone or jointly.
- Indian Patent Act 1970, inventions mean any new or useful art, process, method, apparatus or machine.
- Private or public or corporation can apply for patent.
- Only individual could be termed as 'inventor'.

- Scan patent documents for already known- wastage of money
- Indication of suitable market by evaluating possible competitor patent
- Assist in drafting sound patent application.
- Keep ahead of competitor.
- Patent forms a single storehouse of technological information
- Patents are written in a standard format.
- Patent information is easily accessible through electronic database.



Patent Information:

- Inventions are successful solutions to technical problems.
- Publication of patent and patent document is an essential feature to the patenting process.
- Patent document set out the full technical detail of how an invention works.
- Patent also give insight into commercial information, new market, what competitor developing, growth of country.
- Patent answers
 - what is the technological sphere of the invention
 - what technological problem solved and how
 - what is prior art
 - who is the owner of the patent
 - whether the technology in public domain
- Patent help the R &D to avoid duplication.
- Convey most recent information and speediest form of technological disclosure.
- Give total description and background of invention.
- It disclose not only the concepts concerning general utility of the invention but also possibility of practical application in industry.
- It give general idea about the direction of research work.



- Patent document contain sufficient detail and include illustrations so that an expert can recreate the invention.

Need for Patent System:

- Encourage inventor to disclose invention
- Gives legal protection to patentee
- Do not have to reinvent the wheel
- Inducement to invest in the new line of production.
- Good return
- Assurance of working and commercialization of the invention.
- Invention become open to public.
- Act as stimulant for economic growth by encouraging foreign investment

Patentable Invention:-

- New product or process
- An inventive step and capable of being made or used in an industry.
- Patentable should be technical in nature
- Should have:-
 1. **Novelty** :- not published anywhere, not even oral description
 2. **Inventive** step :- not obvious to a person skilled in the art
:- simple or complex inventive step
 3. **Industrially applicable**:- posses utility

- It helps to explore unexplored and uncovered areas.
- Tool for technology transfer.
- Helps in unearthing traditional knowledge.
- Patent is a tradeable industrial asset for an enterprise.

Features of Patent Right:

- Grant of exclusive right by the government to the inventor
- Protection against infringement
- For limited period where it is granted
- Exploited only by the patent holder or with consent
- Rewards for intellectual effort and compensation for expense incurred in research.
- “Be own police man”

Invention Not Patentable:-

- Inventions contrary to well established natural law.
- Inventions contrary to public order, morality, or which cause series prejudice to human, animal , plant or health or environment.
- Mere discovery of scientific principles
- Abstract theory
- Discovery of living or non living things in nature.
- Mere discovery of a new form of a known substances.
- Substance obtained by a mere admixture resulting the aggregation of the properties.
- Rearrangement or duplication of known device each works independently.
- Method of agriculture or horticulture.

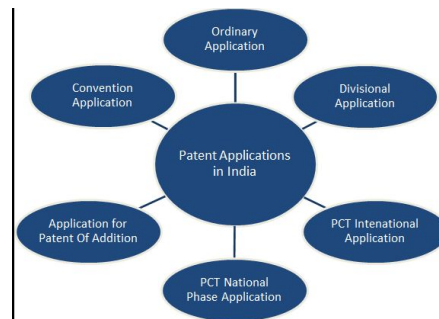
- Any process for the medical, surgical, curative treatment of human being or animal render them free of diseases.
- Plants or animals in whole or any part(seed, variety)

E.g. clones and new variety of plant are not patentable

- But process of preparing genetically modified organism are patentable.
- A literary, dramatic, musical or artistic work.
- Method of performing mental act or method of playing game.
- Presentation of information.
- Topography of integrated circuits.
- Aggregation or duplication of known traditionally known component
- Invention relating to atomic energy.

6 Types of patent applications :

1. Ordinary application
2. Convention application
3. PCT International application
4. PCT National phase application
5. Application for Patent of addition
6. Divisional application



Ordinary application:-

- An application for patent without claiming any priority of application made in a convention country. (or)
- Without any reference to any other application under process.

Patented invention Vs Knowhow:

- Patent may not contain sufficient information for commercialization.
- **Knowhow** covers all information necessary to commercialize the invention.

E.g. setting up a production plant

- Knowhow may contain production information, design, drawing.....
- Knowhow is tradable
- It is kept as a trade secret and not shared with public.
- It is non-patentable.
- Knowhow developed around an existing patent may result in infringement of the patent unless the patentee has agreed.

Convention application:-

- An application claiming a priority date based on the same or substantially similar application filed in one or more of the convention countries.
- To get convention status, an applicant should file the application in the Indian Patent Office within 12 months from the date of first filing of a similar application in the convention country.
- Priority document and its English translation should be submitted by applicant.
- Complete specification should be submitted.

PCT International application:-

- It is an international application governed by the Patent Cooperation Treaty,
- It is a single international patent application can be filed in order to seek protection for an invention in up to 142 countries.
- Priority date obtained by filing a PCT application is internationally recognized, and has an effect in each of the countries designated.
- It gives the application 30/31 months to enter into various countries from the international filing date or the priority date, and therefore gives the applicant more time to assess the viability of the invention.

Application for Patent of addition:-

- When an applicant come across an invention which is a slight modification of the invention for which he has already applied for or has obtained patent, the applicant can go for patent of addition if the invention does not involve a substantial inventive step.
- It expires along with the main patent.
- Application contain reference to main patent to which it refer.

PCT National phase application:-

- When an international application is made according to PCT designating India, an applicant can file the national phase application in India within 31 months from the international filing date or the priority date.
- Request on white paper and Form 1A needed.
- Title, description, drawing, abstract and claims filled with application shall be taken as complete specification.
- WIPO is responsible for send needed documents to designated office

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

GUIDELINES FOR REGISTRATION OF PATENT

A) Process patent or patent for invention

- Patent is granted for invention
- Any new and useful ‘ art, process, method or manner of manufacture’
- Patent in India is under the Patent Act ,1970.

B) Term of patent

- Food, medicine - 5 year from patent or 7 year from sealing date.
- For others – 14 years from date of patent.
- After it patent become public juris.

E) Contents of provisional / complete specification

- Specification may contain objects, statements of claim, drawings.
- May contain the paragraph for,
 1. Introductory paragraph of the invention
 2. Statement of prior art if known to applicant and drawback of such art
 3. Objects of the invention
 4. Statement of claim
 5. Details of invention with reference to the diagram and drawings, if any

C) Who can apply for a patent

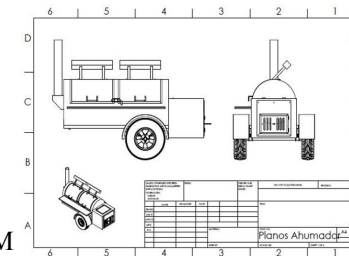
- Any person being the inventor or his assignee can alone or jointly.
- A firm or company or a cooperation can apply – not a inventor.
 - name the inventor
 - but owner of patent will be company

D) Requirements of filling patent

- Name of the inventor
- Name of the applicant- whether it a company ? Constituted under which act?
- Address of the applicant.
- Title of the invention
- Provisional or complete specification of patent.
- Drawings , if any

F) Drawings

- Drawing should be in triplicate.
- Original shall be on tracing cloth/ semi-transparent sheet / film made of plastic



- Measuring 33*20.5 CM f 1.5 CM width all around.
- Title of invention at top left corner.
- Diagram should be clearly numbered.
- Applicant's name at right bottom in block letters

G) Stages of Patent Application

1. Filling of patent application
2. Examination and acceptance of patent applications
3. Advertisement in the official patent gazette and opposition proceeding if any.
4. Sealing of patent(whole process will complete within 4-5 years)

- Publication include,
 1. Date of the application
 2. Application no
 3. Name and address of applicant
 4. Abstract
- Application for patent are not open for public inspection before publication.
- After publication, anyone can inspect it by making a request to controller in the prescribed format and payment of fee.



PATENT FILING:-

- Application is filed according to territorial limits where the first applicant resides/ place of business.
- Patent offices in India:



1. Kolkata
2. Mumbai
3. Delhi
4. Chennai

Publication:

- All applications for patent are published in the Patent office journal after 18 months from the date of filling of the application / date of priority.

↓ Except

- Defence application/ non-filing of complete specification within 12 months after filing the provisional / withdrawn within 15 months of filling the application.

Early request for publication:-

- Use form -9 with Rs.2500/- for natural person
- Use form -9 with Rs.10,000/- for non natural person (business)
- Application is published ordinarily within one month of the request on form-9.
- Applicant have provisional rights from the date of publication.

Request for Examination:

- After filling the application, a request is made by the applicant for examination of application.
- Use form 18- & Rs. 2500/- for natural person (Rs.10,000 for others).
- Within 48 months from date of filling application.

Examination:-

- Examination is done according to the serial number of the request received on form 18.
- **First Examination Report (FER) stating the objections/ requirement is communicated to patentee – within 06 month from the date of request for examination / publication whichever is later.**
- Application should be amended in order to meet the objections within a period of 12 months from the date of FER.
- No further time allowed.
- If all the objections are not compiled within this 12 month, then application cancelled.
- When all requirements are met the patent is granted, after 6 month from the date of publication.
- Letter of patent is issued, entry made in register of patent and notified in patent office journal.

4. Abstract of invention in duplicate.

5. Listing the number, filling date and current status of each foreign application undertaking.

6. Priority documents in convention application.

7. Declaration of inventor-ship.

8. Power of attorney (if filled through agent)

9. Fee

Withdrawal of patent application:

- Application can be withdrawn at least 3 months before the first publication (@ 18 month) – not available for public inspection
- Application can also be withdrawn at any time before the grant of patent- but available for public inspection.

Documents Required for Filling an Application:

1. Application form in duplicate (form 1)
2. Provisional / complete specification in duplicate (form 2)
 - if the provisional specification is filled, it must be followed by the complete specification within 12 month.
3. Drawing in duplicate

Content of Patent Application:

1. *Bibliographic* : contain title of the invention, date of filling, country of filling, inventor' name.
2. *Background of the invention*: lists the state of the art available on the date of filling invention and its drawbacks .
3. *Description of the invention* : describe the invention with workable example
4. *Claims*:
 - series of claims establishing rights over the state of art.
 - Upon which the protection is granted and not on the description of invention.

Main source of patent information :-

- National patent office
- International vendors like Dialog, Orbit, Questel STN

Dialog <http://www.dialog.com/>

PatBase <http://minesoft.com/patbase.asp>

Questal <http://www.questel.orbit.com/>

STN <http://www.cas.org/support/stngen/index.html>

Thomson Innovation www.thomsoninnovation.com

Total Patent <http://lexisnexis.com/ip/totalpatent/>

Date of patent :-

- Date of patent is the date of filling the application for patent.
- Term of the patent is counted from this date.

Cost of filling a patent application in India:-

For filling patent application (750/ 3000)

With in 48 month

For examining patent application (1000/ 3000)

Sealing fee at the time of grant |(1500/ 5000)

Criteria for naming inventors in an application for patent:

1. All persons who contribute towards patentable features should be named inventor(s)
2. All who made intellectual contribution in achieving the final result should be named inventors.
3. Those who have not contributed intellectually not included as inventor.
(conducting the experiments, constructing apparatus or making drawing)

Nature of information needed while consulting a patent attorney:-

- Patent attorney may not be able to draft a good specification in the absence of details about the invention.
- Provide complete details of the invention including failures, on the way to the invention.
- Explain the central theme of the invention and novelty, inventiveness and utility of the invention.
- Central theme, novelty and inventiveness and utility of the invention.
- Share all the prior art documents in your possession with the attorney.
- If developed improved version of competitor's product, admit it. This helps attorney in drafting precise claim.

- Detailed description of the best way of putting invention into practical use, result of tests and trials. Including all failures and defects.
- Alternative way of using inventions
- Respond quickly and accurately to queries that the attorney have.

GRANT OF PATENT:-

- After the requirement in FER are met or opposition is decided in favour of applicant , patent is granted.
- After 6 month from the date of publication.
- Letter patent is issued.
- Entry is made in the register of patent
- Notified in patent office journal.
- After it public can inspect the invention.



Post Grant Opposition:-

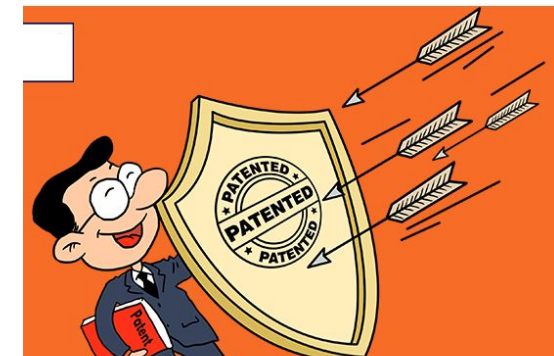
- Opposition can be filed before one year from the date of publication of grant of patent in the patent office journal.
- Use form 7 with evidence if any , amount 1500/6000 in duplication at the appropriate office.



- Post grand opposition is decided by an Opposition Board

Rights of the Patentee:-

- Patent provided for product or process.
- Grant of patent gives the patentee the exclusive right to prevent others from performing, without authorisation , the act of
 1. Making
 2. Using.
 3. Selling
 4. Importing for above purpose



Register of Patent:

- Register of Patent are kept in the patent office.
- It can be inspected or extracted from it can be obtained on payment.
- It contain name, address of patentee & notification of assignment, validity, payment of renewal fees.

Renewal Fee:

- Pay renewal fee every year to keep the patent in force.
- If patent is provided within 2 year, then first renewal fee is payable for the third year.
- Must be paid before second year from the date of patent.

- Representation may be made on the following ground,

1. Wrongfully obtained the invention.
2. Specification was published before the priority date of the claim.
3. Invention was publically known or publically used before date of that claim.
4. If the invention was obvious and not have any inventive step



- If patent not granted within 2 yr, renewal fee accumulated and it must be payed immediately after the patent is granted.
- If renewal fee is not paid within time, patent will cease to have effect.
- Patent can be restored if an application is made within 18 months from the date of cessation.
- Renewal fee is counted from the date of filling of patent application.
- No renewable fee is payable on patent of addition.

Pre-Grant Opposition:-

- Where an application for patent is published, but patent is not granted.
- Opposition to controller against the grant of patent.
- Fill at the appropriate office with statements and evidence if.

5. Not an invention within the meaning of Art or is not patentable under Act.
6. If specification not clearly describe the invention or process.
7. If applicant failed to disclose information required by Section 8.
8. If furnished information was false to his knowledge.
9. Application was not made within 12 month in case of convention application.
10. Doesn't disclose or wrongly mention the source of biological material used for invention.

TYPES OF PATENT DOCUMENTS:

1. Provisional specification
2. Complete specification

Provisional specification:

- It is usually filed to establish priority of the invention if invention in conceptual stage.
- Filing it with patent application does not confer any legal patent right to the applicant.
- Help to establish the earliest ownership of an invention.
- No patent is granted on the basis of a provisional specification.
- Complete specification should be submitted within 12 months of filing provisional specification.

Complete specification :

- Submission of complete specification is necessary to obtain a patent.
- Content of complete specification are:-

1. Title of the invention

2. Field to which the invention belongs

3. Background of the invention including prior art and its limitations

4. Complete description of the invention along with experimental result

5. Drawings, etc.. Essential for understanding invention.

6. Claims related to invention on which legal proprietorship is being

sought