Unit III (b)

Law of patents - Foundation of patent law, patent Searching process, ownership rights and Transfer.

patent is a legal right granted by federal government to the inventor to make, use & sell his inventions. It is an official document that grants exclusive rights to the inventor. The invention can either be a tangible product or a process. The patent holder has exclusive right to file a claim against any individual using his inventions.

The two main intellectual functions of a patent are, (1) it creates market barriers for the other competitors (2) it ensures loyalty to the inventor. Unless the idea is protected from use and exploitation, inventors would have little motivation to spend, time, money, and efforts in creating inventions. They must be allowed to exploit their work commercially and make profits.

But due to advanced Science and Technology the inventor is given a limited period of protection to exploit his work. The protection will be 20 yrs for utility and plant patents and 14 yrs for design patents. After that they fall into public domain for free use.

Registration of a patent is compulsory to

enjoy legal benefits All inventions are not granted the patent protection. To be protected, an invention must satisfy the following conditions.

(a) The invention must be a utility, design or plant patent. (patentable subject matter protected by statute)
(b) It must be useful
(c) It must be novel in relation to the prior patents (New)
(d) It must be non-obvious. (Unique)

(a) Patentable Subject matter specified by statute:- The Subject-matter of an invention should fall within one of the statutory classes stated in Section 35, Sub section 101 of the patent Act. The main classes are utility patents, design patents, and plant patents. // Utility patents are the most common and cover a wide variety of inventions and discoveries including typewriter, automobile, sewing machine, helicopter etc.

Design patents cover new, original, and ornamental designs for useful articles such as "furniture and Container.

Plant patents cover new and distinct asexually reproduced plant varieties, such as hybrid flowers & trees.

Although ideas are not protectable, processes are protectable. A process is an act or series of acts, performed upon its subject matter to be transformed & reduced to a different state. Some ex: are making synthetic diamonds, chrome plating, Smelting ore etc. (packaging frozen food)

The other types of utility patents are (machines, manufactures and compositions of matter) all products & items. A machine ~~device~~ device made up of moving parts, that accomplishes a given task. Manufacture means anything made by a human being. A composition means a combination of two & more chemicals into product. The above mentioned are the only subject matters that fall under patentable classes defined by statute.

(b) Usefulness! - The second requirement is usefulness. patent right will be provided to only useful inventions and discoveries only. Though usefulness is not a stringent standard, the invention must be of some benefit to humanity to be useful. Inventions that serve to amuse & entertain are considered useful. Generally a small degree of utility is sufficient to show that an invention is useful.

Ex:- For acquiring patent for medicine the inventor has to prove that the medicine is effective and useful.

The usefulness may not be for humans, it can be for animals also. But it must be accompanied by supporting evidence.

A patent will be denied when an invention fails to operate as described in the application.

(c) Novelty :- According to Section 101 of the patent act any invention must be 'new' & 'novel' to get patent. In 1970, the Polaroid Company restricted the Kodak Company from manufacturing & selling any instant camera. It indicates that the process of instant photography must be new (novel). It must differ in some way & the other from the prior art of existing work. The following things must be considered by the patent examiner, when assessing the prior art,

(a) Prior patents which were issued a year before filing date of patent & the date of invention.

(b) Prior publication bearing a publication date of more than one year before filing date of patent.

(c) Anything being used & available to public use in the country for more than a year before filing date of the application.

(d) Anything that was known publicly & used earlier by others in the country before the invention was made.

(d) Non-obviousness :- According to 35 U.S.C (103) any invention to qualify for a patent, it should be non-obvious to those having skill in the field & art to which the subject matter belongs to. Determining whether an invention is non-obvious is one of the most difficult tasks for us. Today the safety pin, the measurement tapes all are known to be very obvious. But when they were invented they were unique & non-obvious.

(not common, unique, special)

Exclusions from patent protection :- The following products, processes and items have been excluded from the patent protection. ~~either by Statutes~~

(i) Products of nature :- only human-made inventions can be patented. Naturally occurring substances can not be protected by patent even they are previously not known to public. E.g. ex :- a new plant or mineral that is discovered can not be patented. only the genetically altered living organisms can be patented.

(ii) Laws of Nature :- Laws of nature, physical phenomena, scientific truths, mathematical and chemical formulas etc. can not be patented. But the processes which can use these formulas can be patented. A machine or product that depends on some laws of physics & the law of gravity can be patented.

(iii) painted forms :- painted forms can not get patent protection

(iv) Atomic weapons :- Under the Atomic Act of 1954, Atomic weapons can not be patented though are man made.

(v) Non useful business methods and mental steps :- The systems that are used for business operations which are not producing useful results can not be patented, unless they produce useful, tangible, concrete results. In the same way human thoughts and deliberations are intangible, hence can not be protected.

Classification of patents

Utility patents
Plant patents
Design patents

Patents can be classified into 3 types. They are

(i) Utility patents :- The inventions that belong to the categories of machines, processes, compositions, articles of manufacture, & new uses of any of these can be granted patent rights. Ideas are not patentable but their expressions in the form of processes, methods, products etc. are patentable. Ex:- typewriter, the automobile, helicopter are articles. Making Synthetic diamonds tanning and dyeing etc. are processes. preparing Lactose free milk is a process combined with a method of manufacturing. All these items are patentable

include → useful, Novelty, Non-obvious features

(ii) Plant patents :- This Act was passed in 1930. prior to that time, its philosophy was that plant were natural products hence can not be patented. But Section 161 of patent Act now provides that whoever invents & discovers asexually reproduced and new variety of plant may obtain a patent therefor. It allows the owner to exclude others from producing same varieties of plants. Tubers (potatoes) can not be patented. There are four requirements to get patents

(1) The new variety must be asexually reproduced :- The discovery of a New Variety of plant must be

able to reproduce the plant by asexual means. That means growing something other than for a seed. It can be accomplished by taking stem cuttings and cutting of stems.

(ii) The plant must be distinctive :- The new plant must be clearly distinguishable from existing varieties. Features that show distinctiveness are color, odor ability to grow in different sizes and soils, their productivity etc. It must be different but need not be superior to other plants.

(iii) The plant must be novel :- The plant must be novel (new) and should not have existed in nature previously.

(iv) The plant must be non-obvious :- Sec 161 of the Act does not state directly the non-obvious requirement but the provision applicable to utility patents can be applied to plant patents also.

If the inventor can not prove uniqueness of the plant, it can be protected under plant variety protection Act. It is a patent-like protection. Even plants bred out of seeds can be protected under this Act.

III Design patents :- Design patents are provided for any new, original and ornamental designs

for an article of manufacture. protection will be given to the aesthetic appearance of the article which does not have any functional utility but not to the article itself.

If a useful article is ornamented with a design, the inventor can get utility patent and design patent for that article. No protection will be given for decorative arts. But after 1871 the Act was amended and gave protection to the arts also. To get design patents the requirements are -

(i) It must be an article of manufacture - That means anything made by a human made invention. It includes shape of the article, surface configuration or both.

(ii) It must be new - The design must be new and must posses the novelty requirements that are applicable to utility patents

(iii) It must be original - The design can be patented if it is the original work of the inventor. It should not be a copy & similar to other existing designs.

(iv) It must be ornamental - The design must be ornamental & should not have any functional utility. It must be an aesthetic one and should add value to the article.

Patent Search process

Before an application for a patent is filed, a search should be conducted to ensure that the invention is novel and non-obvious. This search sometimes called a novelty search & prior art search. Search will help us whether the work is barred from protection or whether it has fallen in public domain etc. so a search though not compulsory it is recommended to determine the feasibility of obtaining the patent. It also provides ideas for drafting the application itself.

If an invention is made for immediate commercial use & sale, an additional search called 'freedom to operate' & 'infringement search' conducted. A freedom to operate search is usually conducted before the invention is brought to market, to ensure that the invention does not infringe any existing patent.

Infringement search is conducted after the inventor has been informed that he is violating another's patent.

Some inventors conduct their own searches often engage the services of a professional search firms. The scope and breadth of the search depends on a

variety of factors like, cost-, time, importance of the invention etc. The following are the several search resources available to the inventors.

(i) PTO Search Room :- It provides free search facilities to the general public to search for patent information both domestic and foreign patents. Searching is usually accomplished by using state-of-the-art computer databases, Scientific and Technical books, numerous journals etc. The inventors can take the help of the professional examiners present in the search room.

(ii) patent and Trademark Depository Libraries :- The libraries receive the copies of patents and offer free public internet access to all types of databases.

(iii) online Database :- online database includes all patents issued since 1976, patent number, their classifications etc. Copies can be obtained on payment of a moderate fee.

(iv) Search assistance :- The PTO staff conducts minimal searching for a fee on hourly basis. They conduct on behalf of the inventor and provide necessary information.

(v) Commercial Search Services :- They are the specialists and they provide most accurate and complete patentability

and infringement searches. Usually the preliminary search will be conducted by the inventor using the online database, if the results suggest that the invention is patentable, a more comprehensive search is then ordered from commercial search companies. Search can be customized to the inventor's needs. Some of the well-known search companies are -

(a) Delphion :- Originally it is IBM product, now owned by Thomson Corporation. It provides full complement of patent searching process. It is highly popular and allows searching by patent number, inventor name, and variety of other fields. It offers monthly Subscription and 'one-day pass' to private inventors.

(b) Dialog :- It is another Thomson business. It provides access to more than 900 databases and more than 15 million patents covering 60 countries.

(c) Lexis Nexis :- These websites provide necessary patent documents and other files and perform prior art searches and produce a written report.

(d) Micro patent :- It another Thomson business and provides millions of global free patent documents. Searching can be done by keyword, patent no. etc.

Patent Search methods - (1) Keyword Searching (2) classification Search method

(1) Keyword Searching - This method matches words, phrases and terms relating to the patents. patents from Jan 1976 to the present can be searched by using inventor's name patent's title, Full description of the invent etc. Keyword searches are fast and easy, but the quality of a keyword search depends on the ability of the searcher. The main problem is in this search is ERROR - a keyword search for a term "bird" will produce only patents with that specific word and no patents will be shown with the "avian".

(2) classification Search Method - It is mainly used by patent examiners, but also used by searchers. In this method inventions will be categorised according to their features. All relevant patents will be grouped together called a class. There are nearly 450 classes of inventions. This search is more useful because they do not require researchers to "guess" the word used to describe the invention. But it covers only U.S. patents but not foreign patents.

limitations - (1) It is not possible to cover all the patents.
(2) patent applications are maintained in secrecy

and it will take 18 months to complete the process. During this period it is not possible to obtain any information about the pending applications. So there is no absolute way to anticipate & predict the existence of such inventions.

patent Ownership Rights and Transfer

patents have the attributes of personal property. They may be sold, licensed & transferred to others through patent ownership. Applications are filed by the actual inventor of the article, process design etc. Inventor means a person who reduced the idea to practice. Laboratory note books kept by the inventor support this statement.

Joint inventorship exists even when an invention is the product of more than one person. Joint inventors may not contribute equally and they do not work in the same physical location. ownership issues arise mainly in joint works and the employee inventing something while on the job. There are different ownership issues

(i) Sole inventor ownership: If one person conceives

the idea and reduce it to practice. He becomes the sole owner of such work and take all benefits for himself. Giving suggestions, making minor contribution helping to build a model etc. do not make a person an inventor.

(ii) Joint inventors ownership - When more than one person contributes to an invention, they are joint inventors. persons may be joint inventors even though they do not physically work together & at the same time, they do not make the same amount & type of contribution to the subject matter.

(1) joint inventors need to apply for a patent jointly. (2) Each must make the required oath & declaration in the application. (3) If any joint owner refuses to sign the application, the PTO will still grant the patent. However the patent rights of the omitted owner shall remain enforceable. (4) Errors in the naming of inventors can be readily corrected by amendment to the application, as long as the errors are occured without any deceptive intent. (5) Any Every joint owner has the right to make, sell or use the invention without the consent of the other joint owners.

Disputes over inventorship - In U.S. patent Rights will be

awarded to the "first to invent". But all other countries follow a "first to file" system to award patents. When a dispute occurs over inventorship generally, the first to conceive the invention and reduce it to practice will be held to the prior inventor. Mere conception of an idea is not sufficient, it must be tested also to ensure it works. As a proof, the inventor should keep laboratory "notebooks and he should make routine entries. He must file documents relating to work such as emails, correspondence, Copying charges etc. should be maintained, because they are critical evidences to prove his work.

The inventor previously could file a statement of disclosure with the PTO to provide an evidence of the date on which, the invention was conceived. But Feb 1, 2007 PTO has eliminated this disclosure program.

(iii) Issues when inventions made by employees:- Employers and universities engaged in the business of developing inventions, drugs, processes etc. require their employees to sign an agreement, in which the employees agree that anything discovered by them during the employment will be owned by the employer.

If there is no such agreement, the employee

retains ownership rights, subject to a "shop-right" in favour of the employer. Shop right means non-transferable royalty-free licence to the employer, whether the employee works there or not.

The invention must result from efforts of the employee during his working hours and the material belonging to the employer. If the invention is made during the employee's personal time and not related to the employer's business generally own the invention by himself.

Government Contracts relating to energy nuclear propulsion, weapons programs and other special topics generally provide that the govt. retains title to inventions arising out of such contracts.

Transfer of patent Rights

Because patents have the attributes of personal property, they may be transferred & assigned, just as personal property transferred by will. A written instrument is required stating the patent title, no. date of issue etc. Assignment:- An assignment is a transfer of a party's entire ownership interest & a part of it. Although recording the transfer with PTO

is not required for an assignment to be valid, but it is recommended, because if it is not recorded within the 3 months from its date, it is void against a subsequent purchaser for a valuable consideration.

After the transfer the assignee is responsible to maintain the patent in force. Recorded assignment may be viewed on the PTO website.

In the absence of agreement to the contrary each of the joint owners of a patent may make, use, license, offer to sell & sell the patented invention without the consent of other owners. Patent law does not require a joint owner to account to the others for monies received from such sale. So joint inventors be subjected to written agreement to avoid future misunderstanding.

Licensing of patent Rights :- A license differs from an assignment in that it is not an outright grant & transfer of ownership. The licensing confers a bundle of rights, but less than the entire ownership interest. A license is merely a permission to use. It is limited in its scope, duration, terms & territory. It is an agreement, that the owner will not sue the licensee for using, selling,

& making profits etc. as long as the licensee its obligations and operate according to the terms agreement. License can be given to one party or more than one party. It may be for a limited time period & throughout the life the patent.

Licenses are usually not recorded with PTO because they are viewed as private contractual relationship between parties and do not affect the ultimate ownership of the patent.

The patent owner may receive a lump-sum payment & may receive royalties periodically. Usually royalty payments are based on a certain % or sale of each patented product. Restrictions can be imposed on no. of sales. Sometime they can be forfeited also. patents can be pledged by the owner, etc.

patent Registration process

Patentability Search Conducted
invention satisfies patentability

⇓

Prepare and file an application

⇓

(prosecuting the application) → Application examined by PTO.

⇓

Notice of allowance issued

⇓

Applicant pays fees → patent issued

Patent Search for feasibility:- Before filing an applicate the owner has to conduct patent search to know whether the subject-matter has patentability or not. Though it is not compulsory it helps us to prevent some legal problems. once the search is completed and the owner satisfies the particular patentability status of the object he will go for registration.

II Preparing the application:- The applicant has to prepare the application. preparing patent application requires skillful drafting as well as knowledge in the relevant field, whether it is Chemistry, Biotechnology, Physics, Computers, pharmaceuticals etc. Because patent practice is highly technical, the law firms will appoint a no. of attorneys with different skill sets.

patent application must be in English and there will be different applications for different types of patents like, design patent application, utility patent application, plant application etc. The patent application includes the following elements: (1) Title of the invention
(2) Cross references to related applications

(3) Background of the invention
(4) Drawing of invention and its brief description
(5) Detailed description of the invention.
(6) claims (Scope of protection)
(7) Declaration / oath of inventor.

All these are compulsory clauses to be filled by the applicant with signature.

III Filing the application :- After the application has been prepared in a prescribed format it must be filed with PTO office. The applicant may also submit an application Data Sheet, which contains the detailed information of the applicant. In October 2000, the PTO has implemented Electronic Filing System for quick processing of applications. Applications must be filed along with a prescribed fee.

IV Examination by PTO :- The examination process by PTO is called prosecuting the application. Once the application has been accepted and filing receipt has been issued, the within 30 days, the PTO will assign a patent to the examiner who is trained in that field.