PATENT RESEARCH ANALYST INTERNSHIP: TASKS AND RESPONSIBILITIES

Thesis submitted in fulfilment of the requirements for the Degree of

BACHELOR OF TECHNOLOGY
IN
BIOTECHNOLOGY

By
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In addition, I want to express my sincere gratitude to my parents for their never-ending support and for giving us all the resources required to continue the internship successfully.

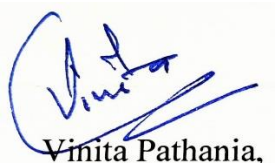
Date: 14th May 2022

Certificate

This is to certify that the work which is being presented in the project report Patent Research Analyst Internship: Tasks and Responsibilities in partial fulfilment of the requirements for the award of the degree of B.Tech in Biotechnology and submitted to the Department of Biotechnology And Bioinformatics, Jaypee University of Information Technology, Waknaghat is an authentic record of work carried out by Nandini Agarwal during the period from February 2023 to May 2023 under the supervision of Mrs. Vinita Pathania (Client Account Manager), Mr.Neeraj Maurya, Mr. Harpreet Singh and Mr. Manish Verma, Patent Research Analyst, TTConsultants, Unit 502, 5th Floor, Tower A, Bestech Business Towers, Sector 66, Mohali,Punjab.

Nandini Agarwal

The above statement made is correct to the best of my knowledge.



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TO WHOMSOEVER IT MAY CONCERN

It is to certify that **Nandini Agarwal** (Employee Code: TTC- 701) is working with Talwar & Talwar Consultants Pvt. Ltd. since 1 February 2023. Her current designation is **Intern- Patent Research Wing.** The internship is going to complete on 31 July 2023.

Till now, her performance has been satisfactory.We wish her all the best for future endeavors.

For Talwar & Talwar Consultants Pvt. Ltd.,

Sna Rikhi
Authenticated through
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Date: Tue May 02 12:55:28 IST
2023

Authorized Signatory

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Chapter -1: Company Introduction

1.1 Introduction:

TT Consultants, also referred to as Talwar & Talwar Consultants, operates across multiple global locations, including India, the USA, Taiwan, and the latest addition in Germany. They specialize in delivering a wide range of services related to Intellectual Property and Innovation Support. These services encompass various aspects of patents, such as patent prosecution and litigation searches, patent licensing and infringement analysis, portfolio ranking, competitor benchmarking, and comprehensive support for research and development searches. What sets them apart is their innovative and automated IP tools, designed to boost efficiency and cost-effectiveness in handling patent-related matters.

TT Consultants boasts certifications in ISO 27001 and ISO 9001:2008, underscoring their unwavering commitment to maintaining high standards of quality and security. Their extensive global presence, with offices in over 30 strategic locations, equips them with the expertise to adeptly address the distinctive needs and challenges of clients across various technology domains. Their dedicated team of highly qualified and experienced professionals consistently strives to deliver top-notch results within tight timelines. In addition to their core services, TT Consultants also offers a diverse range of specialized services, including document assessment, legal research, deposition summaries, and more.

This reputable firm has earned recognition through prestigious awards, including the 'Best Product of the Year – 2013' by STPI, CNBC ICICI SME of the year 2011, STPI Woman Entrepreneur of the Year – 2010, and a notable position among the LPO top 20 Vendors.

Mission: To facilitate strategic decisions and Impact by providing data driven solutions by best-in-class workforce and other advanced technologies.
Vision: To become a leader in the innovation ecosystem by reaching every company around the globe through our services and products.
Values: Innovative, competence, honesty, excellence, humility, transparency, leadership and helpful.

1.2 Services & Solutions Provided by TT Consultants:

Services:

1)- State-of-the-Art (SOA) Patent Search
2)- Patentability Search
3)- Invalidation/Validation search
4)- Design Search
5)- Freedom-To-Operate (FTO) Search
6)- Infringement Search

Patent Portfolio Analysis:

1)- Patent Portfolio Optimization
2)- M&A- Due Diligence
3)- Patent Ranking
4)-Patent Monitoring
5)- Patent Portfolio Commercialization

Technology Intelligence:

1)- Landscape Analysis
2)- Technology Scouting
3)- Technology Tracking
4)- Whitespace Analysis
5)- Competitor Benchmarking

Drafting & Prosecution Support:

1)- Patent Drafting & Illustrations
2)- Office Action Response

Market Research:

1)- Bespoke Market Research
2)- 360° Solutions

Automated Tool:

1)- Xlscout

Chapter 2: Introduction to Intellectual Property

2.1 Introduction

Abstract products arising from human intellect, encompassing notions, concepts, artistic designs, inventive works, manuscripts, and the like, which are acknowledged as belonging to their originator or discoverer, fall under the category of intellectual assets (IA). The expression "intellectual property entitlement" (IPE) pertains to the capacity of a creator or inventor to shield and reap economic benefits from their intellectual assets, be it an innovation or any other form of creation.

Features of IP

- It is the creation of the human mind (intellect).
- It is an intangible property.
- It is time bound and territorial.
- It is attended with limitations and exceptions.

Benefits of IPR:

- It encourages innovation.
- Allows exchange of knowledge.
- Protects the creator and their invention.
- Allows commercial return to inventors.
- Allows work to be used in the public domain.

2.2 Types of IPR

Patent:

This grants an individual or entity an exclusive right sanctioned by the government to protect a groundbreaking or enhanced method or product, suitable for industrial use. This protection remains in force for 20 years from the date of the initial application.

Trade secret:

This refers to a concealed or reasonably discoverable approach, process, design, tactic, marketing plan, production method, or trove of data crucial to a business's functioning, enabling it to outshine rivals financially. This safeguard has no set expiration.

Validity: Unlimited period of time

Trademark:

A unique symbol or emblem employed by individuals, corporations, or legal entities to identify the origin, quality, and creator of a product. It typically involves the utilization of a name, word, phrase, logo, symbol, design, image, or a blend thereof. Trademarks come in different forms, including unregistered versions (™ and SM) and registered trademarks (®), with a validity of 10 years from the filing date, extendable upon renewal.

Validity: 10 years from filing date. (renewable)

Industrial Design:

Encompassing the pleasing visual elements of a product, this encompasses both 2D elements such as shapes, lines, and colors, as well as 3D aspects including surfaces and forms. This protection endures for 15 years.

Validity: 15 years

Integrated Circuit Layout Design:

This focuses on the arrangement of semiconductor circuitry, a pivotal component of chip production. Its purpose is to thwart the risk of unauthorized replication, particularly through the process of photographing each layer of an integrated circuit and creating duplicates. Safeguarding integrated circuit layout designs (topographies) is essential due to substantial time and financial investments. This protection is valid for 10 years from the filing date.

Validity: 10 years from filing date.

Geographical Indication:

Employed when products have attributes, a reputation, or characteristics primarily associated with their place of origin, such as climatic conditions. This term or symbol is placed on goods produced in specific geographical regions. Examples include Kangra tea from Himachal Pradesh and Chanderi sarees from Guna, Madhya Pradesh, serving as noteworthy illustrations.

Validity: 10 years (renewable)

Plant Breeder's Rights:

These are the exclusive rights conferred upon the holder, offering a temporary commercial monopoly over a registered plant variety. They safeguard various aspects, including seeds, cuttings, graftings, and other materials used for propagating a specific plant type. For eligibility, the new plant variety must possess distinct characteristics compared to previous varieties, ensuring uniformity and stability.

Validity:

- 25 years for trees and vines
- 20 years for other species

Copyright & Related Rights:

This entails legal protection granted to the creator of an original work. Copyright encompasses both economic rights, such as reproduction, broadcasting, public performance, adaptation, translation, public recitation, public display, and distribution, as well as moral rights, which allow the author to object to alterations that might harm their honor or reputation.

Related rights, distinct from copyright, pertain to artists, record labels, and broadcasting entities regarding their performances, recordings, and broadcasts.

Validity:

- 70 years plus the author's life (or 95 years from the first publication for certain works)

Chapter 3: Patent

3.1 Introduction

Patent refers to a legal document which gives an inventor exclusive right to make, sell, use and gain monetary benefits from an invention and prevent others from doing so.

Conditions for Patentability:

- Novelty factor in invention.
- Existence of an inventive step.
- The invention should be able to be used in industry
- Invention must be non-obvious.

Non-Patentable Items:

- Laws of Nature
- Mental Processes
- Computer Software
- Abstract Ideas
- Methods of conducting Business
- Printed Matter

Advantages of Patents:

- Helps gain monopoly over market
- Competition is killed/restricted.
- Allows generation of revenue through licensing or sale.
- Grants a product credibility.
- Market yourself

Disadvantages of Patents:

- Patent application filing is an expensive process
- Liability
- Limitation of time
- Limitation of space

3.2 Classification of Patent

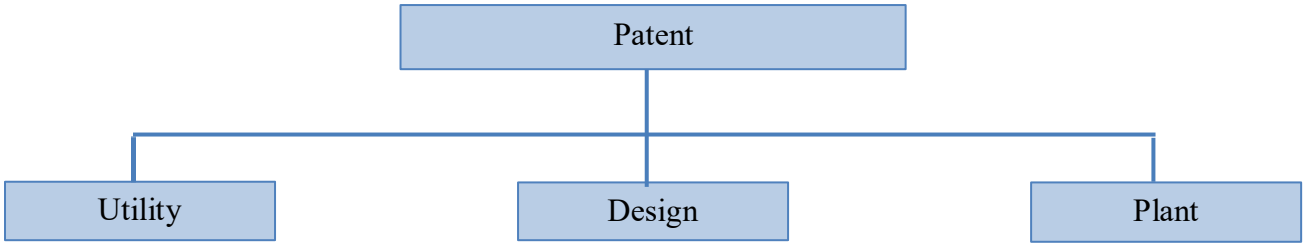


Fig 1: Classification of Patents

Utility Patent:

Granted for original and non-obvious ideas that have a practical application. These patents fall into five categories: process, product, machine, composition of matter, and enhancements to existing concepts.

There are three types of utility patents:

- General Utility: Meets functional requirements.
- Specific Utility: Must perform a particular function.
- Moral/Beneficial Utility: Does not promote harmful or unethical practices.

Design Patent:

A design patent protects a novel and distinctive ornamental design aspect of a manufactured article that serves no functional purpose. This type of patent is only enforceable for a period of 14 years from the date of issuance.

Plant Patent:

Awarded to those who have created or discovered a new plant variation through asexual reproduction, excluding wild plants or those propagated by tubers. The plant must be stable, and various methods of asexual reproduction, like bulbs, rhizomes, and grafting, are considered valid.

3.3 Patent-related Glossary

- **Applicant**: The individual or organization submitting a patent application.
- **Application Number:** A unique identifier assigned to each patent application, comprising a country code, year of filing, and serial number.
- **Inventor:** The creator or developer of an invention, who may also be the applicant.
- **Description:** A section of the patent application providing a detailed account of the invention and its technical context.
- **INPADOC:** An international patent documentation collection representing related patent documents.
- **Priority Number:** The application number of the priority document to which the patent application claims priority.
- **Publication Number:** A unique identifier assigned when a patent application is first published.
- **Patent Family:** A group of interrelated patent applications filed in multiple countries to protect the same or similar inventions.
- **Legal Events:** Procedural steps encountered during the patent granting or post-grant process.
- **Citations:** References to other documents with similar content or in the same field of invention, including backward and forward citations**.**
    - The newer document is referred to as the citing document, while.
    - The earlier document is called the cited document.

Chapter 4: Patent Application

4.1 Introduction

The term "patent application and prosecution" signifies the intricate process of securing patent rights for an innovative creation. This journey involves a blend of legal and administrative steps and culminates in a comprehensive written document that meticulously describes the invention, enabling experts in the relevant field to comprehend, replicate, and utilize it.

4.2 Types of Patent Applications

1)- Provisional Application:

- A provisional application is a preliminary filing made by inventors during the developmental phase of their invention to establish a priority date.
- It encompasses a specification comprising a description and drawings but does not necessitate formal claims.
- Benefits include preserving the priority date, gaining an extra year for refinement, extending protection duration, achieving constructive reduction to practice, retaining non-U.S. priority, and using "patent pending" on products.
- Drawbacks encompass increased filing costs, the need for a detailed disclosure, a one-year filing deadline, potential trade secret exposure, and a deceptive sense of security.

2)- Non-Provisional Application/ Ordinary Application:

- This application is submitted to the Patent Office when there is no priority claim or reference to a previous convention application.
- It comprises a comprehensive written description, claims, an oath or declaration, drawings if needed, and a filing fee.

3)- Convention Application:

- A convention application asserts a priority date based on similar applications filed in countries adhering to the Paris Convention for the Protection of Intellectual Property.
- It must be filed within 12 months of the original application's date in the convention country.

4)- PCT International Application:

Governed by the Patent Cooperation Treaty (PCT), this application streamlines the process by applying for patents in numerous countries concurrently.

It is validatable in approximately 142 countries and offers several advantages, including global protection with one application, time for evaluating an invention's potential, assessing novelty and inventiveness via an International Search Report, and obtaining internationally recognized priority dates.

5)-PCT National Phase Application:

A PCT National Phase application claims precedence over an international filing date and must be submitted in India within 31 months, considering the earlier date of filing or priority.

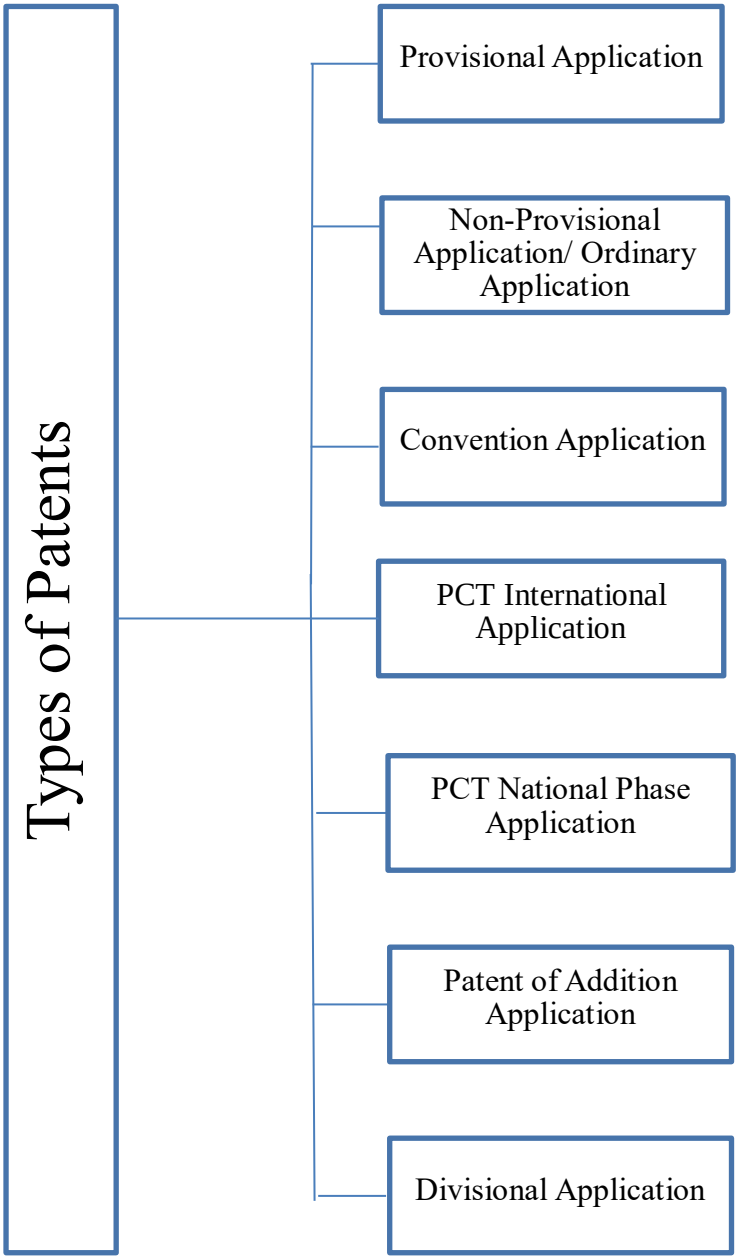
6)-Patent of Addition Application:

- This application addresses minor modifications or enhancements to an existing invention without involving substantial inventive steps.
- It is granted after the parent patent's issuance and incurs no separate renewal cost. If the parent patent is revoked, conversion into an independent patent is possible.

7)- Divisional Application:

- A divisional application is voluntarily filed by the applicant or in response to a Patent Office objection.
- It separates from the parent application when the latter encompasses multiple inventions.

These patent application categories offer distinct pathways for safeguarding innovative ideas and creations.


Types of Patents
Provisional Application
Non-Provisional Application/ Ordinary Application
Convention Application
PCT International Application
PCT National Phase Application
Patent of Addition Application
Divisional Application

Chapter 5: Patent Classification System

5.1 Introduction

Patent classification plays a pivotal role in organizing patent applications, simplifying the task for examiners and offices to identify documents that share similarities with a particular patent or possess comparable claims. This system primarily aims to enhance the efficiency of searching and retrieving relevant patent records.

There are several advantages and disadvantages of using classification-based searching:

Pros:

Comprehensive Results: Classification-based searching tends to yield more comprehensive outcomes compared to keyword searches alone.

Language Neutrality: This approach remains unaffected by shifts in language or terminology, making it dependable across linguistic variations.

Conceptual Search: It lends itself well to concept-based searches, allowing for the exploration of inventive concepts beyond mere keyword matching.

Useful for Older Patents: Classification-based searching proves particularly useful for older patents that might lack complete textual descriptions or claims.

Cons:

Complex Structure: Classification systems are structured in a complex hierarchy, necessitating familiarity with their rules and intricacies.

User Expertise Required: To make effective use of classification-based searching, users need to acquaint themselves with classification rules and conventions.

5.2 Types of Classification Systems:

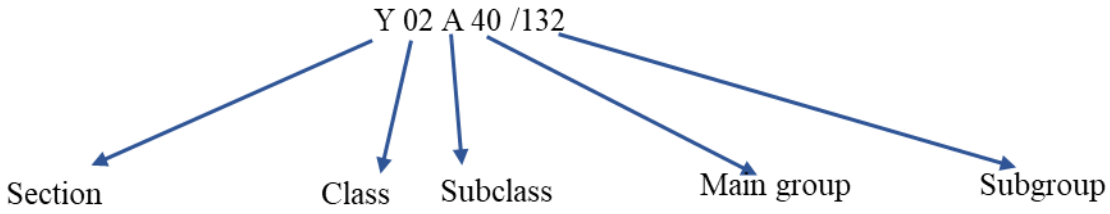
International Patent Classification (IPC): An international system employing language-independent symbols to categorize patents, offering a hierarchical structure consisting of sections, classes, subclasses, main groups, and subgroups. It employs two classification designations: Core Classification Designation and Advanced Classification Designation.

The levels are:

- Sections (A-H),
- Classes,
- Subclasses,
- Main Groups, and
- Subgroups.

The IPC system uses two types of classification designations, the **Core Classification Designation** and the **Advanced Classification Designation**, which are revised every three years and three months, respectively. While the IPC system provides more exhaustive results and allows for concept searches, it has a complex structure, and knowledge of its rules is required to utilize it.

For Example: Y02A40/132



2)- European Patent Classification (ECLA):

A system maintained by the European Patent Office, complementing IPC with similar hierarchical levels. ECLA benefits from precision in class definitions, frequent updates, and the inclusion of non-patent literature indexing.. It complements the IPC classification system and has similar hierarchical levels consisting of

- Sections A-H,
- Classes,
- Subclasses,
- Groups and
- Sub-groups.

For instance, the code G09B25/10 represents a classification in ECLA. ECLA may add another subgroup to the IPC subgroup to provide a more detailed division of scope, such as in the example G09B25/10.

The benefits of ECLA include

- Being maintained and created by experts,

- Having precise class definitions,
- Frequent updates and
- The inclusion of non-patent literature indexing.

3)- US Patent Classification (USPC):

Exclusive to US patent documents, this system classifies patents using a 3-digit class and a 6-digit subclass, separated by a slash. It remains popular due to the significance of US patents in prior art searches. The US classification system was introduced in 1968, the same year as the IPC. It categorizes patents using a 3-digit class and a 6-digit subclass, with the final three digits representing decimal places. The class and subclass are separated by a slash. For instance, 705/312.558 is an example of the US patent classification system in use.

4)- Cooperative Patent Classification (CPC):

A unified classification system resulting from collaboration between the European Patent Office (EPO) and the United States Patent and Trademark Office (USPTO). It aims to enhance patent search capabilities and resource sharing.

5)- Locarno Classification (LOC):

Designed for categorizing industrial designs on an international scale, LOC comprises class, subclass, an alphabetical list of goods, and explanatory notes. It originated from a conference held in Locarno in 1968.

Apart from these, there are several other classification systems, such as the Japanese FI and F-term Classification, as well as the Canadian Patent Classification (CaPC), catering to various aspects of patent categorization and retrieval.

Chapter 6: Patent Cooperation Treaty

The PCT stands as a global treaty for patent law, providing a streamlined approach to patent protection worldwide. It empowers inventors to file a single patent application through the PCT's Receiving Office (RO), ensuring safeguarding in all participating member states. The International Searching Authority (ISA) conducts a thorough examination, offering a search report and insights on patentability. However, it's crucial to understand that the PCT doesn't grant universal patents; inventors must proceed to the national/regional phase for patent issuance. This approach proves cost-effective and strategically advantageous for global patent protection.

Function of WIPO in PCT:

WIPO, operating within the PCT framework, plays a vital role as the administrative entity. It diligently checks applications for filing formalities, publishes PCT applications and related information on its platform, and handles translations of PCT application materials into English or French.

Alternatives for Filing Applications Under the PCT:

There are two alternatives for filing applications under the PCT:

- The first entails submitting a comprehensive PCT application that complies with all formal requirements and includes a single set of fees.
- The second option involves initiating a national application within 12 months, followed by a subsequent PCT application. Both avenues offer valuable routes for patent protection and global innovation recognition.

Application Procedure/ Timeline of PCT:

Publication
International Search Report (ISR) & Written Opinion
National application / PCT filing (priority date)
PCT Filing
File Demand, argument and/or amend application (Article 34)
IPRP
National phase entry
months
0
12
16
18
22
28
30
2 mos after ISR amend claims (Article 19)

Chapter 7: Patent Searching

Patent searching can be categorized based on the purpose of the search. The following are the five main types of patent searches:

Novelty Search:

Novelty searches, also termed Patentability searches, are typically carried out by inventors. Their purpose is to assess the uniqueness of an invention in relation to existing products or processes. This exploration aids in gauging the potential for patenting the invention.

Validity Search:

Validity searches, known as Invalidation searches, are commonly undertaken by companies facing allegations of patent infringement. The goal is to challenge the validity of the contested patent by uncovering prior art that might have been overlooked during the initial patent grant.

Infringement Search:

Infringement searches are conducted by companies aiming to identify products, standards, or services that might be infringing upon patents with similar technology. This type of search assists companies in identifying potential unauthorized use of patented products.

Freedom-To-Operate (FTO) Search:

Prior to product launches, searches for freedom-to-operate (FTO), also known as clearance searches, right-to-use searches, or right-to-market searches, are conducted. Making sure that the procedure or product doesn't violate any valid or pending patents is the goal in order to allow for market access.

State-Of-The-Art (SOA) Search:

State-Of-The-Art (SOA) searches offer comprehensive insights into existing prior art and the current state of technological development in a particular field or sub-field. These searches prove invaluable for assessing R&D efforts and commercial viability. SOA searches benefit those entering new technology domains and those seeking to refine or pivot their R&D and commercialization strategies.

Date Criteria for Different Patent Searches:

S.No.	Patent Search	Date Criteria
1	Patentability Search	No limit/ restriction
2	Invalidation Search	<= Earliest Priority Date
3	Infringement Search	>= Earliest Priority Date
4	FTO Search	Within 20 years
5	SOA Search	No limit/ restriction

Table 1: Different patent searches with respective date criteria.

Chapter 8: Tasks Performed/ Projects Undertaken

1)- NPL Searching:

NPL sources:

Fig 2: Components of NPL

Databases Utilized:

- Google Search
- Google Scholar
- ScienceDirect
- Frontiers
- JSTOR
- NCBI
- IEEE

Google Search

Operator	Purpose	Example
OR	Separating synonyms of keywords	(Extendable OR expandable OR stretchable)
AND	Separating two concepts	(Motor AND cycle)
NOT	Excluding keywords appearing after NOT	(Annular NOT proximal)
*****	Acts as a wild-card and captures any word.	Circular -replication
-	It excludes the word it is used before from search results	Molecular -diagnostics
~	Searches for the word and its synonyms it is used before	~Thanks results in Gratitude, grateful, etc.
“”	Searches for exact phrase	“antibiotic susceptibility test”
AROUND()	It helps specifies no. of words that can separate two names	“Andy Rubin” AROUND(2) “Steve Jobs”

Table 2: List of Operators for Google Search (database)

Query Examples:

1)- ((AI OR Artificial Intelligence) AND ((“mobile” OR phone OR cellular device) AND (app or application)) AND (quiz or questionnaire or test))

2)- (oral OR mandibular) AND (device OR apparatus OR system) AROUND (customize OR 3d model)

2)- Infringement Search:

Infringement searches are conducted to safeguard your patented invention from unauthorized usage, ensuring that only authorized entities can manufacture, use, or sell it. These searches involve scrutinizing whether a product or process infringes upon an existing patent claim.

Steps Involved:

1. Patent Examination:

Begin by thoroughly comprehending the subject patent. Understand its nuances, especially the novel aspects, as these will be crucial in identifying potential infringing products that have utilized the patented features for commercial purposes.

2. Initiate Search:

Launch the search using layman's terms or simplified language on popular search engines like Google. Utilize relevant keywords and their synonyms, ensuring that the total number of words in your query does not exceed the 32-word limit, as Google supports up to 32 keywords in a single search.

3. Assess Product Timelines:

If you discover a product that appears to infringe upon your patent, ensure that it falls within the specified date criteria. Since the patent's priority date is April 3, 2020, the product in question must have been manufactured and commercialized prior to this date.

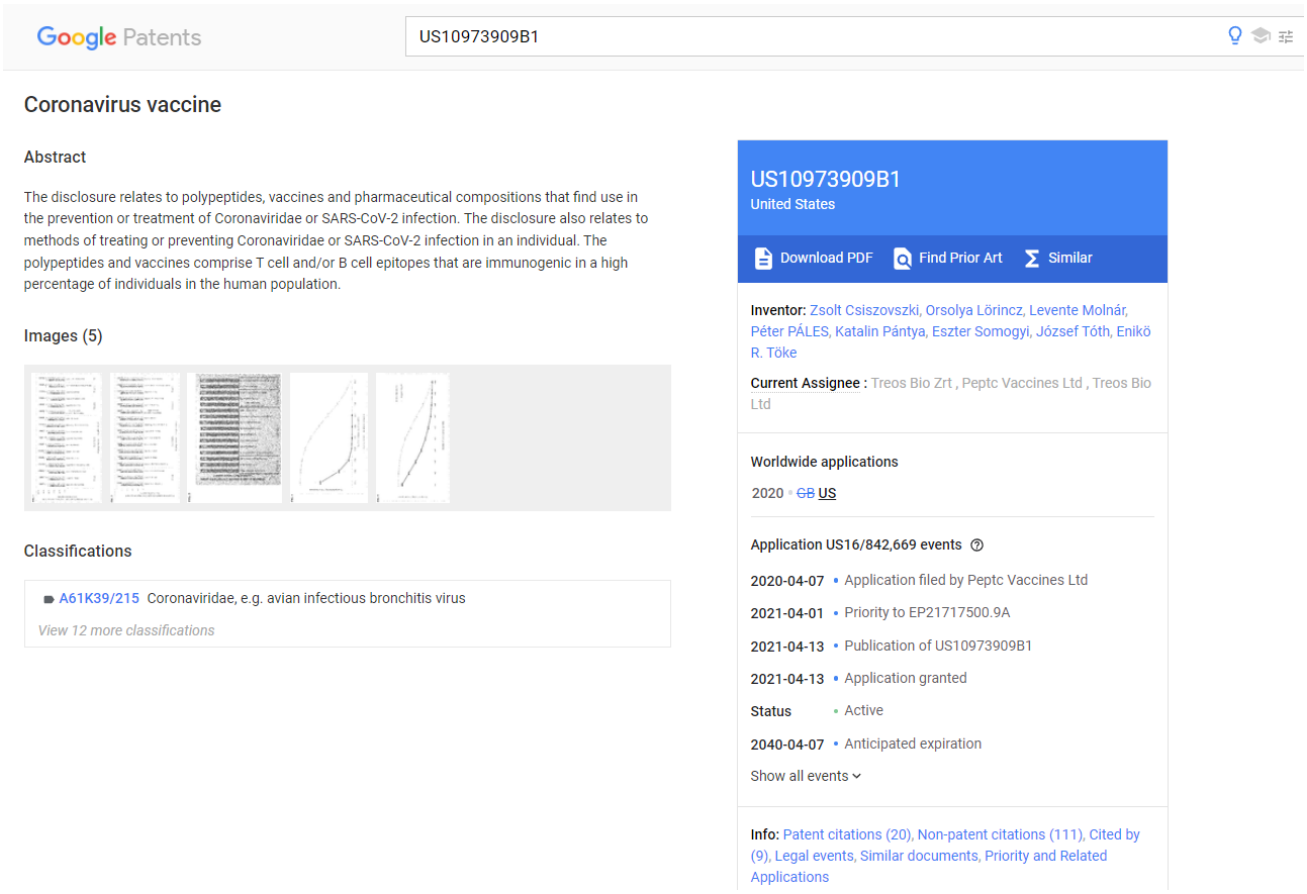
4. Background Verification:

Conduct a comprehensive background check on the potentially infringing product. Gather all pertinent information from various sources such as the product's official website, blogs, news articles, or any other relevant documentation that directly infringes upon the novel aspects of the patent.

5. Product Mapping:

Finally, map the identified product, providing concrete evidence to the client that this specific product is indeed infringing upon their patent rights.

In Infringement search, we get a subject patent, let us say, we got a subject patent: **US10973909B1;** and this subject patent is related to Corona Virus vaccine.



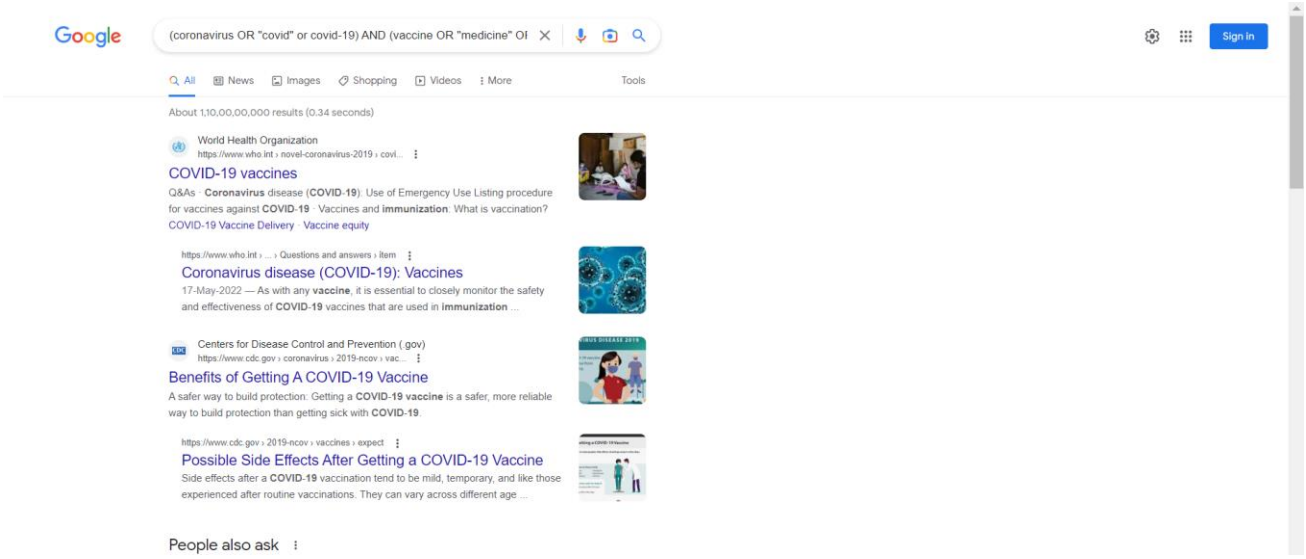
Description:

The disclosure relates to polypeptides, vaccines and pharmaceutical compositions that find use in the prevention or treatment of Coronaviridae or SARS-CoV-2 infection. The disclosure also relates to methods of treating or preventing Coronaviridae or SARS-CoV-2 infection in an individual. The polypeptides and vaccines comprise T cell and/or B cell epitopes that are immunogenic in a high percentage of individuals in the human population.

Steps followed in Infringement Search:

- We will read and understand the patent firstly.
- Then, we will find out the novel point of this patent because it will be used for finding relevant infringing products that have used this patent's features to commercialize their product.

- Then, we will start our search by using layman's or easy language on Google Search Engine using relevant keywords and their synonyms making sure that the number of words does not exceed the limit of 32 words as Google only supports 32 keyword searches at a time.



If we find a relevant product that is infringing our patent, we will make sure that the product lies within the date criteria. As the priority date of the patent is April 03, 2020, we need a product that was manufactured and commercialized before this date.

- After proper background check of the infringing product, we will find out all the desired texts from various sources like the infringing product's website, blogs, and news etc. that's directly infringing the patent's novel points.
- Then, we will map this product, proving to the client that the particular product is infringing your patent.

3) Invalidation Search:

- Invalidity searches play a critical role in the commercialization of patents, particularly before engaging in high-stakes legal battles. Patent owners turn to validity searches to confirm the enforceability of their intellectual property rights. Additionally, interested parties utilize (In)-Validity Searches for various strategic objectives, including:

- Avoiding patent litigation
- Escaping hefty licensing fees
- Clearing the path for product development
- Exploring alternative purchasing options for their patent or product portfolio
- Evaluating the strength and validity of a patent before investing significant resources.

In Invalidation search, we get a subject patent, let us say, the same subject patent: **US10973909B1**; and this subject patent is related to Corona Virus vaccine.

Steps followed in Invalidation Search:

1. Patent Understanding:

Begin by thoroughly understanding the subject patent. Delve into its novel aspects to ensure your searching strategy aligns with its specific features.

2. Multi-Faceted Search:

Conduct your search across three distinct bases:

- Patent Databases (such as Orbit and Derwent)
- Google Patent
- Non-Patent Literature

3. Exhaustive Search:

Dedicate significant time and effort to exploring patent databases, as they often yield the most fruitful results. Additionally, leave no stone unturned when searching for research papers, company whitepapers, blogs, or any other content that predates the subject patent and shares the same technological features.

4. Text Extraction:

After sifting through a vast array of patents and non-patent literature, extract the most pertinent texts from these sources. These selected texts will serve as evidence to demonstrate to the client that the subject patent is, in fact, based on technology already existing before its filing.

Conclusion

Securing intellectual property rights is absolutely crucial to foster innovation. Without such protection, businesses and individuals would be hesitant to invest their time and resources in research and development. Our national and state economies are undeniably intertwined with the concept of intellectual property (IP). Intellectual property serves as the cornerstone for economic growth and competitiveness. It guarantees that products are authentic and of the superior quality that consumers expect. In essence, consumers and markets greatly value and depend on the trust and assurance offered by IP rights.

Furthermore, intellectual property rights play a pivotal role in facilitating the seamless exchange of knowledge, which is critical for the progress of innovations. By safeguarding the valuable expertise underpinning an original patented invention, IP rights foster the dissemination of information. This dynamic process results in the emergence of fresh ideas and improvements to existing ones. Even in the face of challenges, intellectual property rights serve as a motivating force for entrepreneurs, propelling them to pursue groundbreaking innovations.

Undoubtedly, a patent search serves as a practical and cost-effective measure. It allows individuals and businesses to ascertain whether their innovation already exists. Through a comprehensive patent search, one can determine whether their invention might encroach upon existing patent rights or potentially challenge a competitor's patent. Additionally, conducting a

patent search can offer valuable insights to refine and enhance one's idea. By exploring existing patents, you gain a comprehensive perspective on the uniqueness and utility of your innovation, enabling you to make necessary refinements and improvements.