

The Use of Prosecution History of Foreign Counterpart Patents to Make In-Depth Analysis of Thai Patents

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Abstract

Patent prosecution is a procedure in which a patent is sought through the interaction between the examiner and the applicant in the course of the process starting from submission of a patent application and ending with decisions of the patent office, which may be a rejection or an approval of the application. The information recorded from filing to rejecting or granting is crucial to the faith of a patent or an application – in a rejection, the applicant can utilize the information for petition of disagreement, and in an approval, the patentee can use said information to enforce the patent, whereas the competitors can make use of it to invalidate the patent. All the information from the commencement to the end of prosecution, especially the communication between the applicant and the examiner is stored in a file called in some jurisdictions such as the United States as prosecution history – an important source for the patentee to protect her patent and the competitors to secure public interest. The recording of patent information in the United States is very comprehensive, whereas, said information recorded in Thailand lacks the details to provide guidelines to each patent sought to be studied; consequently, the use of prosecution history or file wrapper from foreign countries such as the United States to learn about the background of Thai patents asserting to have foreign counterpart patents will be useful to make in-depth analysis of the Thai patents said to have such foreign counterpart patents. The research leading to this article, therefore, studied the gist of prosecution history as well as related aspects together with Thai patents with foreign counterpart patents in order to point out the usefulness of prosecution history or file wrapper from foreign counterpart patents to interested parties including courts in the analysis of Thai patents.

Keywords: Patent, Prosecution History, Estoppel, Disclaimer, Evidence, Counterpart Patent, Patent Litigation

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1. Introductory

Reading through legal stipulations including the Thai Patent Act, related Ministerial Regulations, and the Thai Manual of Patent Examining Procedure (Thai MPEP), one may find an implication that there exists a recording, folder or file resembling prosecution history, file history or file wrapper in the United States. The most current Thai MPEP, the Manual on Examination of Utility Patent and Petty Patent Edition B.E. 2562 (2019)² provides in Part 1, Section 1 that a preliminary examination, which is a step of patent application examination in which the competent officials and patent examiners begin the processes subsequent to a filing of a patent by an applicant, is performed.³ This action of the Thai Department of Intellectual Property (Thai DIP) can be said to be the first contact between the examiner and the applicant rolling what can be called properly as patent prosecution in Thailand in accordance with the Thai Patent Act.⁴

At this stage, where an application for a patent on a claimed invention has been filed in any foreign country, the applicant shall submit a report or any document concerning the result of the examination of the application,⁵ of which if the applicant has applied for patent in various foreign countries, the examination report or document to be submitted may be one from the first filing country or any country prescribed by the Director-General, and shall also specify whether the claimed invention satisfied the requirements prescribed by the law of that country or not, and reveal whether claims put forth have been accepted or rejected under the law of that country together with the reasons of the decision.⁶

² Manual on Examination of Utility Patent and Petty Patent Edition B.E. 2562 (2019) [hereinafter “Thai Manual of Patent Examining Procedure” or “Thai MPEP”]] was issued by virtue of the Order of the Department of Intellectual Property (DIP) No. 138/2562 on Manual on Examination of Utility Patent and Petty Patent Edition B.E. 2562.

³ Thai MPEP, Part 1 Utility Patent Application, Section 1 Preliminary Examination.

⁴ Thailand Patent Act B.E. 2522 (1979) as revised by Patent Act B.E. 2535 (1992) and by Patent Act B.E. 2542 (1999) [hereinafter Thai Patent Act]

⁵ Thai Patent Act, Sections 27 para 2.

⁶ Ministerial Regulations No. 22 (B.E. 2542) (1999) Issued under the Patent Act B.E. 2522 (1979), Clause 13 para 3.

All the steps of applying for a patent from an application filed to finally rejected or granted combined with every step of examination formed a legal proceeding called prosecution, of which even though there is no provision of law in particular or no official writing in general mentioning the said term, it is universally well-known and well-accepted in many jurisdictions, e.g., the United States. Although there is no actual rule in Thailand that stipulates that all the proceedings are to be recorded as a history, the overall recording of the proceedings inclusively can be considered in comparison with the recording in the United States, a Thai prosecution history. Nonetheless, it is unfortunate that the details of said Thai prosecution history are not so elaborative. Hence, the usefulness of such file is not up to a degree to be a tool for thorough study of a patent. Notwithstanding, those who are scrutinizing Thai patents with foreign counterpart⁷ patents can make use of prosecution history or file wrapper from the foreign countries such as the United States to study the Thai patents since counterpart patents are patents of the same invention filed in different jurisdictions or countries. They should comprise mainly the same information.

The research leading to this article selectively looked majorly into a number of cases where the center of disputes was Thai patents with foreign counterpart patents, particularly ones from countries in which patents are mostly sought, for example, the European countries, the United States and Japan and study how prosecution history or file wrapper from the patent offices of those countries namely the European Patent Office (EPO), the United States Patent and Trademark Office (USPTO), or Japan Patent Office (JPO) has been utilized in order to explore the information embedded in the said document – the focus is especially on the United States jurisdiction. The outcome of the said research, which is an empirical study⁸ meaning that it relies on experience

⁷ See USPTO, Glossary available at <https://www.uspto.gov/learning-and-resources/glossary>. It is explained that a counterpart means “an application filed in a foreign patent office that is substantially similar to (like) the patent application filed with the USPTO and is based upon some or all of the same invention. The two applications would generally have the same applicant.” See also *Cuno Inc. v. Pall Corp.*, 729 F.Supp. 234 (E.D.N.Y. 1989). Examples of counterpart patents can be found in cases such as *Cuno Inc. v. Pall Corp.*

⁸ See Empirical Research: Definition, Methods, Types and Examples, accessed 3 August 2022, <https://www.questionpro.com/blog/empirical-research/> Empirical study or empirical research is defined as a research or study based on empirical evidence gathered through experiences in the field of the study being researched or the research being studied. The strength of an empirical study or research is particularly on the



or observation, not on system and theory, is the understanding of the significance of in-depth analysis of Thai patents with foreign counterpart patents. Through the use of prosecution history, an elaborative comprehension of the said Thai patents can be fashioned in order to prevent injurious possibility of disapproval, opposition, allegation, or lawsuit and to equip related parties to patent prosecution or litigation so as to be ready for the proceedings.

In this article the foremost explanation will be on prosecution history and related doctrines in the United States, followed by prosecution history in Thailand. The consideration of prosecution history will be substantiated through experiential cases to demonstrate the significance role it can play in the analysis of patents and determination of patent claims via the anecdotes on litigations on Thai patents with foreign counterpart patents closing with solutions and recommendations.

2. What is a Prosecution History

2.1 Prosecution History

It is the task of an applicant or an inventor who asserted to have made an invention or a discovery⁹ to submit to the patent office the output and outcome of the claimed invention or discovery which may be any novel process, machine, manufacture, or composition of matter that contains the utility thereto or the novel improvement thereof which comprises the utility thereto. The corresponding task of the patent examiner is to scrutinize all the information provided in the aforesaid application in order to find out primarily whether or not what is arguably asserted is an invention or a discovery

experiences of the researcher perhaps not only because the root of the word in greek “empeirikos” means “experienced” but also since the focus of data gathering is on the real work on the ground. Empirical study can roughly be divided into two categories, i.e., quantitative and qualitative studies or researches, each of which comprises various types of methods or mechanisms. The empirical study of the research leading to this article was a qualitative research case study founded on court cases advocated, consulted, litigated, et cetera by the researcher. Indeed, many cases have been dealt with for over 20 years, but only two prominent cases worked on from 2008 to 2019 have been selected to represent other cases and to be thoroughly and demonstrably studied.

⁹ 35 U.S.C., section 101 Inventions patentable. The US Patent Act provides that a person who “invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent.”

as well as whether the claimed invention or discovery satisfies the statutory conditions for patentability of novelty,¹⁰ non-obviousness,¹¹ considering case laws in the United States, e.g., *Diamond v. Chakrabarty*¹² or *Diamond v. Diehr*.¹³

Throughout the process that is called prosecution, theoretically and to a certain degree practically, all that is said, submitted, presented, argued, asserted, claimed, amended, so on and so forth from the first day that is considered the date of the application to the last day that is the granting date, are recorded in the file – a prosecution history or file wrapper.¹⁴ It is to be reminded to all those who are involved with obtaining a patent that all the recorded aspects of the prosecution can and will be used when it comes to analyzing such a patent.

¹⁰ 35 U.S.C., section 102 Conditions for patentability; novelty

¹¹ 35 U.S.C., section 103 Conditions for patentability; non-obvious subject matter

¹² *Diamond v. Chakrabarty* 447 U.S. 303, 309 (1980). The Supreme Court in *Diamond v. Chakrabarty* by Mr. Chief Justice Burger held that “a live, human-made microorganism is patentable subject matter under statute providing for issuance of patent to a person who invents or discovers ‘any’ new or useful ‘manufacture’ or ‘composition of matter.’ ” One of the analyses of the Patent Act 1952 which is famously well-known is that the Supreme Court was of the opinion that “[t]he Committee Reports accompanying the 1952 Act inform us that Congress intended statutory subject matter to ‘include anything under the sun that is made by man.’ ” S.Rep.No.1979, 82d Cong., 2d Sess., 5 (1952); H.R.Rep.No.1923, 82d Cong., 2d Sess., 6 (1952).

¹³ *Diamond v. Diehr* 450 U.S. 175 (1981). The Supreme Court in *Diamond v. Diehr* by Mr. Justice Rehnquist held that “although by itself a mathematical formula is not subject to patent protection, when a claim containing such formula implements or applies it in a structure or process which considered as a whole is performing a function designed to be protected by the patent laws the claim constitutes patentable subject matter.”

¹⁴ Bryan A. Garner, *Black’s Law Dictionary*, 8th ed. (St. Paul, MN: Thomson West, 2004), 1258, 660. (Prosecution history, See FILE WRAPPER; file wrapper ... Also termed *file history*; *prosecution history*.) See *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 30 (1997). The Court in that case pointed to “a well-established limit on nonliteral infringement, known variously as ‘prosecution history estoppel’ and ‘file wrapper estoppel.’ ” The Court also cited to *Bayer Aktiengesellschaft v. Duphar Int’l Research B.V.*, 738 F.2d 1237, 1238 (C.A.Fed.1984). See also *Amstar Corp. v. Envirotech Corp.*, 730 F.2d 1476, 1485 (Fed. Cir. 1984). In the said case when the Court referred to Envirotech’s effort to create a prosecution history estoppel, it was written as “a prosecution history (“file wrapper”) estoppel;” *Jonsson v. Stanley Works*, 903 F.2d 812, 817 (Fed. Cir. 1990); when the Court cited to *Standard Oil Co. v. American Cyanamid Co.*, 774 F.2d 448, 452, 227 USPQ 293, 296 (Fed.Cir.1985), Chief Judge RE stated that “the prosecution history (or file wrapper) limits the interpretation of claims.” *Manual of Patent Examining Procedure (MPEP)* 9th Edition, Revision 10.2019, Last Revised June 2020, Section 719 File Wrapper [R-07.2015] stipulates that “[t]he electronic file record in which the U.S. Patent and Trademark Office maintains the application papers is referred to as an image file wrapper. The electronic file record is the official record of the application.”



In *E.I. DuPont De Nemours & Co. v. Phillips Petroleum Co.*, Phillips impelled that “during the prosecution history Du Pont made arguments on the meaning of the density that are contrary to the district court’s interpretation,” to which the Court agreed with Phillips that “arguments made during the prosecution history are relevant in determining the meaning of the terms at issue.”¹⁵ Two main doctrines stemming from prosecution history are to be discussed in the latter parts.

2.2 Prosecution History Estoppel

When courts come to a question of determining whether a patent claim is valid or infringed, there is a need to construe the meaning of terms used in the claim.¹⁶ There are various sources to help define the meaning of each term, other than the wordings of the claim in question, words of other claims, the specification, and the prosecution history of the patent or the application are useful tools.¹⁷ The Federal Circuit in *Rheox* clarified that the court made an assessment “whether a patentee relinquished a particular claim construction based on the totality of the prosecution history, which includes amendments to claims and arguments made to overcome or distinguish references.”¹⁸

¹⁵ *E.I. DuPont De Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1430, 1438 (Fed. Cir. 1988).

¹⁶ Daniel Kazhdan and Molly R. Silfen, “Inventors Beware: The Danger of Getting Too Many Patents,” *Santa Clara Law Review* 60, no. 2 (2020): 289, 321, quoted in Peter S. Menell, Matthew D. Powers, and Steven C. Carlson, “Patent Claim Construction: A Modern Synthesis and Structured Framework,” *Berkeley Technology Law Journal* 25, no. 2 (2010): 713.

¹⁷ *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005). The Federal Circuit held that it is important to understand that “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” The Court referring to its own decision quoting *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed.Cir.1998) that:

“The inventor’s words that are used to describe the invention—the inventor’s lexicography—must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology. Thus the court starts the decision making process by reviewing the same resources as would that person, viz., the patent specification and the prosecution history.”

¹⁸ *Rheox, Inc. v. Entact, Inc.*, 276 F.3d 1319, 1326 (Fed. Cir. 2002) quoting *Elkay Mfg. Co. v. Ebco Mfg. Co.*, 192 F.3d 973, 979, 52 USPQ2d 1109, 1113 (Fed.Cir.1999) (“Because it is the totality of the prosecution history that must be assessed, not the individual segments of the presentation made to the Patent and Trademark Office by the applicant, it is irrelevant whether Elkay relinquished this potential claim construction in an amendment to the claim or in an argument to overcome or distinguish a reference.”).

Apart from being limited to technical meaning of the term in a claim, an applicant can be estopped by the statements making certain arguments during prosecution, particularly since there is an equitable doctrine of equivalents¹⁹ that permits a patentee to sue a defendant for patent infringement though there is no literal practice of every element recited in the claims inasmuch as the claim differences are only “insubstantial.”²⁰ In other words, prosecution history estoppel prevents a patentee from using the doctrine of equivalents to resurrect the subject matter relinquished from the literal scope of a claim during prosecution.²¹

¹⁹ See *Graver Tank & Mfg. Co. v. Linde Air Prod. Co.*, 339 U.S. 605, 608, 70 S. Ct. 854, 856, 94 L. Ed. 1097 (1950). The Supreme Court in *Graver Tank* pointed out the application of the doctrine of equivalents that “ ‘[t]o temper unsparing logic and prevent an infringer from stealing the benefit of the invention’ a patentee may invoke this doctrine to proceed against the producer of a device ‘if it performs substantially the same function in substantially the same way to obtain the same result.’ ”

²⁰ Daniel Kazhdan and Molly R. Silfen, “Inventors Beware: The Danger of Getting Too Many Patents,” *Santa Clara Law Review* 60, no. 2 (2020): 289-321 citing to *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 24 (1997) (quoting *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 610 (1950)). See *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 24 – 25 (1997). The Supreme Court in *Warner-Jenkinson* described some of the considerations that go into applying the doctrine of equivalents quoting *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 609 (1950) that:

“What constitutes equivalency must be determined against the context of the patent, the prior art, and the particular circumstances of the case. Equivalence, in the patent law, is not the prisoner of a formula and is not an absolute to be considered in a vacuum. It does not require complete identity for every purpose and in every respect. In determining equivalents, things equal to the same thing may not be equal to each other and, by the same token, things for most purposes different may sometimes be equivalents. Consideration must be given to the purpose for which an ingredient is used in a patent, the qualities it has when combined with the other ingredients, and the function which it is intended to perform. An important factor is whether persons reasonably skilled in the art would have known of the interchangeability of an ingredient not contained in the patent with one that was.”

²¹ *Hoganas AB v. Dresser Indus., Inc.*, 9 F.3d 948, 950 (Fed. Cir. 1993). In *Hoganas*, when the issue was at trial in the district court, a special master was appointed to decide the motion, in which a report was issued recommending the motion to be granted. The special master concluded that the “straw-shaped, channel-forming elements” limitation was not literally met by the corresponding element in the Adtech product, vinyl chloride acetate fibers, because these fibers “are so fine as to be barely visible by the unaided eye,” and thus “bear no resemblance to straw.” It was also concluded that “this limitation was not met under the doctrine of equivalents because *Hoganas*, through prosecution history estoppel, had relinquished coverage of compositions employing “capillary-size” fibers, including the acetate fibers in the accused product.”



2.3 Prosecution History Disclaimer

Prosecution history plays critical roles in determination of claim construction. Considering this function, prosecution history is one of the main tools of intrinsic evidence to demonstrate the breadth and scope of claims since, among other things that it recorded, is the anecdote supporting claim interpretation. In *Arendi S.A.R.L. v. Google LLC*,²² the Federal Circuit was of the opinion that the Patent Trial and Appeal Board (PTAB) misapplied *Sorensen v. Int'l Trade Comm'n*²³ by pointing out that in that case, the court explained that “in order to disavow claim scope, a patent applicant must clearly and unambiguously express surrender of subject matter during prosecution.”²⁴ The court there stressed that “a disclaimer must be clear and unmistakable”²⁵ and that “it is the applicant, not the examiner, who must give up or disclaim subject matter that would otherwise fall within the scope of the claims.”²⁶

The Federal Circuit elucidated further that “[i]n construing patent claims, a court should consult the patent’s prosecution history so that the court can exclude any interpretation that was disclaimed during prosecution.”²⁷ Furthermore, prosecution disclaimer “preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution”²⁸ and “[t]hus, when the patentee unequivocally and unambiguously disavows a certain meaning to obtain a patent, the doctrine of prosecution history disclaimer narrows the meaning of the claim consistent with the scope of the claim surrendered.”²⁹

²² *Arendi S.A.R.L. v. Google LLC*, 882 F.3d 1132 (Fed. Cir. 2018).

²³ *Sorensen v. Int'l Trade Comm'n*, 427 F.3d 1375, 1379 (Fed. Cir. 2005).

²⁴ *Sorensen v. Int'l Trade Comm'n*, 427 F.3d 1375, 1378 (Fed. Cir. 2005) citing to *Middleton, Inc. v. Minn. Mining & Mfg. Co.*, 311 F.3d 1384, 1388 (Fed. Cir. 2002).

²⁵ *Sorensen v. Int'l Trade Comm'n*, 427 F.3d 1375, 1379 (Fed. Cir. 2005) citing to *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1325–26 (Fed. Cir. 2003).

²⁶ *Sorensen v. Int'l Trade Comm'n*, 427 F.3d 1375, 1379 (Fed. Cir. 2005) quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1124 (Fed.Cir.2004); and referring also to *Bell Atl. Network Servs., Inc. v. Covad Comm'c'ns Group, Inc.*, 262 F.3d 1258, 1273 (Fed.Cir.2001) (Holding that, unlike the statement of an applicant, the statements of an examiner will not necessarily limit a claim.)

²⁷ *Arendi S.A.R.L. v. Google LLC*, 882 F.3d 1132, 1135 (Fed. Cir. 2018) citing to *Sorensen v. Int'l Trade Comm'n*, 427 F.3d 1375, 1378 (Fed. Cir. 2005) (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1317 (Fed. Cir. 2005) (en banc)).

²⁸ *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1359 (Fed. Cir. 2017) quoting *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003).

²⁹ *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1359 (Fed. Cir. 2017) quoting *Biogen Idec, Inc. v. GlaxoSmithKline LLC*, 713 F.3d 1090, 1095 (Fed. Cir. 2013).

3. Prosecution History in Thailand

An inventor or an applicant obtaining a patent in Thailand, similar to any other jurisdictions, has to go through a prosecution process through the patent office, which in the Thai case is the Thai Department of Intellectual Property (Thai DIP), from the starting point of making an application for submission to the Department until the patent is granted or otherwise finally rejected. In Thailand, there ought to legitimately be a document recording all communications of an inventor or an applicant with the patent office or the Thai DIP from filing to granting/rejecting of an application – a sort of document sharing likeness to prosecution history or file wrapper in the United States. This is demonstrable through the Thai Patent Act, the bylaws, and the guidelines, in particular, the most current Thai MPEP (2019).³⁰

If the details of the prosecution are disregarded, the enumerations of the procedures are overlooked, and the documentations, qualitatively and quantitatively are neglected, in other words, if the gist of obtaining a patent is left out of account, patent granting and patent analysis can be problematic. Indeed, this has been the situation in Thailand. It may presumably be debatably dilemmatic since Thailand has typically not been the main examining office.³¹ This has partially resulted in the actuality that the communication between the applicant and the examiner, which has been ordinarily and regulatory recorded in details in the United States, has not been transcribed in Thailand because the main patent prosecution has usually been done in other jurisdictions such as the United States. Therefore, the information embedded in the Thai patent application files is not comprehensively compiled.³² The crux and challenge of such

³⁰ Department of Intellectual Property, *Manual on Examination of Utility Patent and Petty Patent Edition B.E. 2562* (Bangkok: Department of Intellectual Property, 2019).

³¹ For those who are curiously skeptical on examination of the Thai patent office or the Department of Intellectual Property, the reason that the word “main” is used here is to indicate that there is/are other office/offices, especially the United States Patent Office, the European Patent Office or the Japanese Patent Office that normally is/are first or foremost destination/destinations for inventors, particularly foreign inventors to file patent applications with; therefore, these offices are the “main” examining offices. This, in no way, means that the Thai patent office does not “examine,” but rather it is not the “main” examining office.

³² Interview with Mr. Suradej Assavintarangkul, former Specialist on Utility Patent, Thai Department of Intellectual Property, 3 August 2022. Mr. Assavintarangkul explained that Thai patent examiners make search



troublesome matter and the solution to it will be exemplary elucidated through cases that will be explored in later parts, including Black Case No. TP 151/2551,³³ Black Case No. TP 19/2552,³⁴ (Red Case Numbers TP 81- 82/2555) [Silom I and II],³⁵ and Supreme Court 9832 – 9833/2560 [Silom III and IV];³⁶ and Black Case No. TP 61/2557 (Red Case No. 195/2560) [MacroPhar I]³⁷ and Specialized Court of Appeals 828/2562 [MacroPhar II].³⁸

reports together with their opinions submitted to the Director General and provided to patent applicants. Nonetheless, the report is unlike the prosecution history in the USPTO, which is much more elaborative. Typically, the reports are more detailed when the applications are rejected since the applicants need to know the reasons in which if they are in disagreement, they may appeal the decisions of the examiners. But in case where the patents are granted, usually the reports only summarize the examiners' opinions or the results of foreign examinations. Notwithstanding, currently the Department of Intellectual Property is developing a more detailed application history of which in the future more information will be given to the public so that interested parties may make better use of the files.

³³ . This case was one in which Novartis AG alleged Silom Medical of a patent infringement.

³⁴ This case was one in which Silom Medical countered the Novartis AG infringement case, alleging invalidity of a patent.

³⁵ The Intellectual Property and International Trade Court combined Black Case No. TP 151/2551 and TP 19/2552 into one and later on when the Court made a decision the number of said decision was Red Case Numbers TP 81 – 82/2555.

³⁶ The two parties appealed to the Supreme Court since that time cases from the Intellectual Property and International Trade Court, which is one of a specialized courts, were stipulated by the statutes to be appealed to the Supreme Court. The system had since changed from 2015 that cases from specialized courts including the Intellectual Property and International Trade Court are to be appealed to the Specialized Court of Appeals, and later on should the parties desire to appeal to the Supreme Court, a petition for writ of certiorari must be submitted and left up to the Supreme Court to decide whether there is a merit of the case to be reviewed by the Supreme Court.

³⁷ This case was one in which GD Searle and Pfizer (Thailand) alleged MacroPhar of a patent infringement and MacroPhar countered alleging invalidity of a patent.

³⁸ The Intellectual Property and International Trade Court found the patent at issue completely invalid; therefore, GD Searle and Pfizer filed an appeal and MacroPhar answered to that appeal. Later on the Specialized Court of Appeals affirmed the decision of the trial court and a petition for writ of certiorari was not accepted by the Supreme Court, making this case the final decision.

4. Litigations on Thai Patents with Foreign Counterpart Patents

The main study and in-depth analysis in the research leading to this article was on two sets of cases in Thai courts utilizing prosecution history from the United States and Europe to significantly solve the dilemmatic conundrum – Silom and MacroPhar cases.³⁹ The Silom Medical case substantially involved Thai Patent No. 18749 with counterpart patent U.S. Patent No. 6,294,197 (the ‘197 patent) on solid oral dosage forms of valsartan, and the MacroPhar case mainly related to Thai Patent No. 17791 with counterpart patents European Patent No. EP 1049467 and U.S. Patent No. 9,750,756 (the ‘756 patent) on celecoxib compositions.⁴⁰ The Silom Medical case began when Novartis AG filed a patent infringement lawsuit against Silom Medical alleging that the latter infringed Thai Patent No. 18749 comprising 53 claims with two main independent claims, i.e., claim 1 and claim 18, and these claims were among other claims asserted by Novartis AG to be infringed by Silom Medical – all the alleged infringing claims of the main complaint were claims 1, 2, 4 – 7, 18 – 25, and 38 – 41.⁴¹ The discussions in the research leading to this article has been substantially on claims 1 and 18, which were the main independent claims, the former asserted to be a product claim and the latter to be a process claim.

Subsequent to being sued, the defendant was at the point of having very limited resources, specifically informative materials and technical experts. In addition, it was thought that pursuing just the infringement lawsuit to prove non-infringement might not

³⁹ In both of the two cases, the leading attorney was Mr. Manothai Pramroj Na Ayuddhya and the counselor was the author (Jade Donovanik). The way in which the cases are called is to resemble the typical common law citation, particularly the United States system of citing or referring to the names of the plaintiff and defendant, whereas the typical Thai system is to cite or refer to the initial of the court’s name together with the numbers of the case slashes the Buddhist Era (B.E.), according to which for the Silom case were Black Case No. TP 151/2551 – Black Case No. TP 19/2552 – Red Case No. TP 81 – 82/2555, Supreme Court 9832 – 9833/2560.

⁴⁰ Since the counterpart patents in the two cases, in the Silom Medical case – the US counterpart and in the MacroPhar case – the EP counterpart are direct translations of the Thai patents; therefore, these patents have been by and large utilized for relating issues of the cases. For the purposes of this Article, the MacroPhar case has not been discussed (please see the main research for further study).

⁴¹ See Supreme Court 9832 – 9833/2560 at pp. 3 – 9. See also U.S. Patent No. 6,294,197 (providing English translations of Thai Patent No. 18749 claims 1, 2, 4 – 7, 18 – 25, and 38 – 41).



be enough – a more elaborated and efficient strategy ought to be established. To this respect, it has been quite well-received that other than asserting non-infringement, a defendant has a leveraged battleground of invalidity since infringement can be effectively combated by defense of invalidity that a defendant accused of infringement may argue that the asserted patent claims are invalid.⁴² A counter lawsuit of invalidity often is a matter of strategy since it may or may not be beneficial in that if the defendant has grounds to prove non-infringement, e.g., the accused product is not within the scope of the patented invention, then invalidity lawsuit may be an excessive choice, but if the defendant knows for certain that the accused product is similar if not identical to what is claimed in the patent or is uncertain of claim construction and the interpretation of claims that may be taken in court, a counter invalidity lawsuit may be the only choice; however, this option brings about a difficult path that lies ahead since proving invalidity is not an easy task.⁴³

When a patent lawsuit is tried in a trial court, generally, the initial task for all the parties, especially the court, is to set outright claim construction and to interpret from there what all the alleged infringing claims cover or encompass. Of course the utmost important definitive factor of the scope of protection is the claims, but claims are to be interpreted in light of the specification or detailed description, which definitely does not mean that all what said in the specification or the detailed description is to be read into all the claims, these have been legal doctrines from case laws held by courts in

⁴² See Joshua L. Sohn, *Reassessing the Role of Trial in Patent Litigation*, 27 FED. CIRCUIT B.J. 187, 208 (2018). See also 35 U.S.C. § 282(b) and (b)(2) (stipulating defenses to presumption of validity).

⁴³ See, e.g., Joshua L. Sohn, *Reassessing the Role of Trial in Patent Litigation*, 27 FED. CIRCUIT B.J. 187 (2018) at 209 and n. 106. Sohn explained that “[i]f the accused infringer has pled invalidity as a *counterclaim*, rather than an affirmative defense, then the accused infringer may theoretically elect to pursue that counterclaim even after a judgment of non-infringement” referring as an example to *Kaneka Corp. v. Xiamen Kingdomway Grp.*, No. 2:11-CV-02389-MRP-SS, 2014 WL 12573541, at *1 (C.D. Cal. Feb. 24, 2014) (“Defendants have alleged a declaratory judgment counterclaim of invalidity, which provides the Court with continued Article III jurisdiction over the counterclaim of invalidity after a judgment of noninfringement.”) and stated further that “invalidity trials following a judgment of non-infringement are exceedingly rare events” since “[a] defendant has little incentive to pursue an invalidity counterclaim following a judgment of non-infringement, unless perhaps the accused infringer has other non-adjudicated products that it fears might be accused of infringing the patent in the future.”

many jurisdictions, particularly in the United States.⁴⁴ However, if the claims are yet not clear after recourse to the specifications, a prosecution history of the patent may be looked up to determine whether a certain meaning has been intended by the patentee.⁴⁵ If, however, the meaning and scope of the claims remains unclear, resources from expert and inventor testimony, dictionaries, and learned treatises may be helpful to explain scientific principles, meanings of technical terms, and terms of arts appeared in the patent as well as the prosecution history; furthermore, they may also demonstrate the state of prior arts at the time of the invention.⁴⁶

Although there is no stipulation of the Thai patent law specifically addressing claim construction, nor is there a practice of the Thai courts to begin a patent lawsuit with claim construction, there are clues to investigate whether there exists something on the same line. In this respect, Section 36bis of the Thai Patent Act mentioned “the scope,” 3 times by different wordings, i.e., the scope of the rights of the patent owner with regard to a patented invention, the scope of the invention in relation to the claims, and the scope of the invention obtaining protection,⁴⁷ which may all be inferred that

⁴⁴ See, e.g., *Am. Permehedge, Inc. v. Barcana, Inc.*, 105 F.3d 1441, 1444 (Fed. Cir. 1997) (holding that “claims ... define the scope of protection”); *Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 957 (Fed. Cir. 1983) (explaining that interpretation “in light of the specification does not mean that everything expressed in the specification must be read into all the claims”); *United States v. Adams*, 383 U.S. 39, 49, 86 S.Ct. 708, 713, 15 L.Ed.2d 572, 148 USPQ 479, 482 (1966) (pointing out that “it is fundamental that claims are to be construed in the light of the specifications and both are to be read with a view to ascertaining the invention”); *Raytheon Co. v. Roper Corp.*, 724 F.2d 951, 957 (Fed. Cir. 1983) (specifying “[t]hat claims are interpreted in light of the specification does not mean that everything expressed in the specification must be read into all the claims”).

⁴⁵ See *Kapusta v. Gale Corp.*, No. CIV. S 03-1232LKKKJM, 2004 WL 5644802, at *2 (E.D. Cal. Aug. 5, 2004).

⁴⁶ See *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370, 116 S. Ct. 1384, 134 L. Ed. 2d 577 (1996); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996); *Hilgraeve Corp. v. McAfee Assocs., Inc.*, 70 F. Supp. 2d 738, 743 (E.D. Mich. 1999), *aff’d* in part, *vacated* in part, 224 F.3d 1349 (Fed. Cir. 2000); *Hilgraeve Corp. v. Symantec Corp.*, 90 F. Supp. 2d 850, 855 (E.D. Mich. 2000), *vacated*, 265 F.3d 1336 (Fed. Cir. 2001).

⁴⁷ Thai Patent Act, Section 36bis.

Section 36bis. *The scope of rights of the patent owner* under section 36 with regard to a *patented invention* shall be as indicated in the claims. In determining *the scope of the invention in relation to the claims*, the characteristics of the invention as indicated in the detailed description of the invention and its drawings shall be taken into account



“the scope” must be determined and of course in a lawsuit in Thailand, this must be done by the court – deductively this may be where the practice of claim construction should lie. Indeed, in the actual proceeding of the Silom case, the Intellectual Property and International Trade Court (IP and IT Court) took the initial step to determine the scope of claim 1 of the Thai Patent No. 18749 – an action which is conceivably in line with the principles of claim construction in the United States.⁴⁸

Claim 1 which is normally the broadest independent claim as shown below was read in order to find the scope of the claim together with the specification or the detailed description, which supporting details have been found on page 6 line 32 on to page 7 line 9 of the Thai Patent No. 18794 as placed together below.

Claim 1

1. A compressed solid dosage form comprising

a) an active agent containing an effective amount of valsartan or a pharmaceutically acceptable salt thereof; and,

b) at least one pharmaceutically acceptable additive wherein the active agent is present in an amount of more than 35% by weight based on the total weight of the compressed solid dosage form.

The scope of the invention obtaining protection shall include the characteristics of the invention which, although not specifically indicated in the claims, have the same qualifications, functions and effects as those indicated in the claims according to the view of a person having ordinary skill in the art or other technologies related to the invention. (emphasis added)

⁴⁸ Interview with Mr. Vichai Ariyanuntaka, former Supreme Court Justice specializing in intellectual property issues, who had decided numerous intellectual property cases, including a large number of patent cases, 3 August 2022. Mr. Ariyanuntaka explained that claim construction is a process of finding the actual intent of the applicant similar to seeking the intention of a contract. The intent of the applicant should derive from the communication between herself and the examiner, upon which in a country like the United States, correspondences between them are recorded in a file called prosecution history, without which a full, precise and correct claim construction may not be completely made. Notwithstanding, we do not have prosecution history in Thailand, but claim interpretation still has to be done; consequently, the parties bear the burden of proof on presenting the scope of the claims to courts using whatsoever exists in the patent file. A proposal should be made to the Thai patent office to initiate a recording like prosecution history, upon which the court may issue the rule of the court to serve the new practice of the Thai patent office, with which patent litigations will be elevated to another level.

Detailed description

The invention provides in another of its aspects a process of making a solid oral dosage form as hereinabove described. Such solid oral dosage form may be produced by working up components a) and b) defined hereinabove in appropriate amounts, to form unit dosage forms.

In a preferred embodiment there is provided a process of making the solid oral dosage forms as hereinabove described comprising the steps of

- i) grinding the active agent and pharmaceutically acceptable additives,
- ii) subjecting a mixture of the ground active agent and additives to compression to form a copriate
- iii) converting the copriate to form a granulate and
- iv) compressing the granulate to form the solid oral dosage form.

The process is carried out in the absence of water, i.e. it is a dry compression method.

When this first claim was read in light of the shown specification or detailed description demonstrating the preferred embodiment, it was viewed as indeed not a product per se claim, but rather a product-by-process claim and that said process was the one provided above, of which the key is that it was a dry compression method. This matter was significant because pharmaceutical textbooks used for pharmacy students⁴⁹ explained that there are basically two different methods of making dosage forms, i.e., wet granulation and dry granulation processes, of which what was demonstrated in the specification or detailed description of the patent shown to be dry process, whereas the process that Silom Medical used to make its drug was a wet process. This means that if the patent is a product (valsartan) – by – process (dry compression) patent, there is a chance that the product made by Silom Medical may not infringe the patented invention, irrespective of the resulting product to be valsartan.

⁴⁹ See, e.g., Herbert A. Lieberman, Leon Lachman, and Joseph B. Schwartz, eds., *Schwartzpharmaceutical Dosage Forms: Tablets*, 2nd ed., vol. 1 (New York: Marcel Dekker, 1989), 137-139 (comparing wet granulation, dry granulation, and direct compression, and explaining wet granulation process); Herbert A. Lieberman, Leon Lachman, and Joseph B. Schwartz, eds., *Schwartzpharmaceutical Dosage Forms: Tablets*, vol. 1 (New York: Marcel Dekker, 1980), 173 (explaining dry granulation process).



In respect of a claim being a product-by-process, Thai patent law lacks the provisions to cover said type of claim, and in addition, there has never been any Thai case law addressing such kind of claim. Nonetheless, one of the cases from the court in the United States that would be significantly helpful for said claim construction was *Atlantic Thermoplastic v. Faytex Corporation*,⁵⁰ in which the Federal Circuit descriptively delineated various details of product-by-process claims in a meticulous manner through explanations of many different cases from hierarchical levels of courts. It has indeed been long held by all the courts in the United States, especially the United States Supreme Court that claims are required by laws to prescribe the inventions of the patentees in a precise manner of what they are since it is unjust to the public if claims are construed in a manner different from the plain import of their terms,⁵¹ and in all varieties of claims including a product-by-process claim, it is the claim language that defines the bounds of patent protection.⁵²

The Federal Circuit further pointed out that “[w]hen ... an article of manufacture is a new thing, a useful thing, and embodies invention, and that article cannot be properly defined and discriminated from prior art otherwise than by reference to the process of producing it, a case is presented which constitutes an exception to the rule,”⁵³ and a claim to a new product by describing it with process terms has been permissible,

⁵⁰ *Atl. Thermoplastics Co. v. Faytex Corp.*, 974 F.2d 1279 (Fed. Cir. 1992). It is to be noted that for the purpose of this research the issue on product-by-process claims is not described thoroughly; however, it is highly advisable for one who wants to have a good grasp understanding without having to read too much to review this whole case in due respect that it covers most of what should be known of product-by-process claims in a short, concise, and comprehensible manner suitable for a brief study.

⁵¹ *White v. Dunbar*, 119 U.S. 47, 52, 7 S.Ct. 72, 75, 30 L.Ed. 303 (1886) (“The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention is; and it is unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms.”)

⁵² *Atl. Thermoplastics Co. v. Faytex Corp.*, 974 F.2d 1299, 1300 (Fed. Cir. 1992) citing to *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 232, 63 S.Ct. 165, 167-68, 87 L.Ed. 232 (1942) (internal quotation marks omitted); *General Elec. Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 369, 58 S.Ct. 899, 902, 82 L.Ed. 1402 (1938); *Continental Paper Bag Co. v. Eastern Paper Bag Co.*, 210 U.S. 405, 419, 28 S.Ct. 748, 751, 52 L.Ed. 1122 (1908); *White v. Dunbar*, 119 U.S. 47, 52, 7 S.Ct. 72, 75, 30 L.Ed. 303 (1886) (internal quotation marks omitted).

⁵³ *Atl. Thermoplastics Co. v. Faytex Corp.*, 974 F.2d 1279, 1285 (Fed. Cir. 1992) quoting *In re Painter*, 1891 C.D. 200, 57 O.G. 999 (Comm’r of Pats.1891) at 200 – 01.

when the inventor “finds that his invention is incapable of description solely by structure or physical characteristics,”⁵⁴ pertaining to which the product-by-process method of claiming a product is a “perfectly acceptable one so long as the claims particularly point out and distinctly claim the product” and that “it is the patentability of the product claimed and not of the recited process steps which must be established.”⁵⁵

Furthermore, it is well established in the United States that in addition to the language of the claims and the specification (or the detailed description), “the intrinsic evidence for claim construction purposes includes a patent’s prosecution history, if such history is in evidence”⁵⁶ and “prior art cited in a patent constitutes intrinsic evidence for claim construction” as well.⁵⁷ This line of precedent of the courts in the United States was viewed by the Silom Medical team to be a pivotal tool to be adopted in order to establish correct claim construction of Thai Patent No. 18749. Hence, the Thai prosecution history was sought, but once found, the information recorded was too little to be utilized except for that there was a statement indicating that the patent was issued due to the fact that a patent was granted to the United States counterpart application; as a consequence, a need for the United States’ prosecution history seemed to be most reasonable, pertaining to which, a professor of law at the University of Southern California, School of Law, Roman Melnik, was consulted and thereafter agreed to participate in the case and afterwards played important roles in exemplifying information provided in the prosecution history through issues relating to the disputed patent.

Retracing to claim construction especially on claim 1 of the Thai Patent No. 18749 or more correctly the ‘197 patent, other than the specification, the United States examiner made a non-final rejection on February 2, 2000 where claims 1 – 3 were rejected for being unpatentable by virtue of 35 U.S.C. Section 103(a) for obviousness

⁵⁴ *Atl. Thermoplastics Co. v. Faytex Corp.*, 974 F.2d 1279, 1285 (Fed. Cir. 1992) citing to *In re Hughes*, 496 F.2d 1216, 1218 – 19, 182 USPQ 106, 107-08 (CCPA 1974).

⁵⁵ *Atl. Thermoplastics Co. v. Faytex Corp.*, 974 F.2d 1279, 1286 (Fed. Cir. 1992) quoting *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

⁵⁶ *Safety Rail Source, LLC v. Bilco Co.*, 656 F. Supp. 2d 468, 475 (D.N.J. 2009) citing to *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996).

⁵⁷ *Am. Radio, LLC v. Qualcomm Inc.*, No. CV-12-1123-MRP, 2013 WL 3270404, at *6 (C.D. Cal. May 23, 2013), *aff’d*, 578 F. App’x 975 (Fed. Cir. 2014) quoting *Powell v. Home Depot USA, Inc.*, 663 F.3d 1221, 1231 (Fed.Cir.2011).



under Muller et al in view of Makino et al.⁵⁸ In response to the examiner's non-final rejection, the applicant made written arguments on many issues including on rejection pertaining to Makino et al. for many pages, but as an example, the applicant argued on first full paragraph of page 12 stating that:

"[f]urthermore, the production of the tablets in Makino *requires water* [emphasis added]. Indeed, "if the amount of water is too small, the mechanical (falling impact) strength of tablets will not be sufficiently high ..." (Column 6, Lines 26 – 28). In stark contrast, contrary to conventional procedures, the production of the tablet core in the instant invention *does not involve the use of water* [emphasis added]. Thus, *Makino actually teaches away from Applicant's process* [emphasis added] and therefore the combination of Muller and Makino cannot render Applicant's invention prima facie obvious. *Additionally, claims which recite that the coprimate is formed by compression in the absence of water have been included in the instant invention* [emphasis added]. Thus, since the cited references do not teach or suggest all the claim limitations of Applicant's invention, there is no prima facie case of obviousness. For this reason, as well as the arguments presented above, Applicants respectfully request that this rejection be withdrawn."⁵⁹

The various reasons put together may be why the examiner made a handwriting script that "[e]xaminers suggested to amend the claims by defining the product claimed in the invention by the process of making and adding specific additives in the dosage form. Examiner suggested also to add specific features to the method claimed."⁶⁰ This can be viewed in other words that the examiner was suggesting that the claim be written to clearly show that it is a product-by-process claim, but for reasons unknown, the applicant did not make the corresponding amendment and the examiner did not insist that it needed to be done.

From the arguments of the applicant to the non-final rejection of the examiner, not only that claim 1 may be interpreted as a claim to a product made by a dry process,

⁵⁸ See U.S. Patent No. 6,294,197, Public Patent Application Information Retrieval, Image File Wrapper, 02-02-2000/CTNF/Non-Final Rejection, pp. 2 – 3.

⁵⁹ See U.S. Patent No. 6,294,197, Public Patent Application Information Retrieval, Image File Wrapper, 07-31-2000/REM/Applicant Arguments/Remarks Made in an Amendment, p. 12 (emphasis added).

⁶⁰ See U.S. Patent No. 6,294,197, Public Patent Application Information Retrieval, Image File Wrapper, 12-11-2000/EXIN/Examiner Interview Summary Record (PTOL – 413), p. 1.

but also that claim 18 may be inferred as a claim to a dry process since the applicant affirmatively addressed that “the copriate is formed by compression in the absence of water.”⁶¹ Combining all the resources found, the claim construction was quite settled, afterwards the U.S. Patent No. 5,399,578 (the ‘578 patent), which existed on the list of references cited by applicant and considered by examiner was mainly focused.⁶² At trial, Silom Medical presented the claim construction as planned that claim 1 is a product-by-process claim, whereas Novartis AG stood starkly rigid that the claimed invention, particularly claim 1 of the Thai Patent No. 18749 with the counterpart U.S. Patent No. 6,294,197 is a product claim covering all sorts of processes, be it direct compression, dry granulation or wet granulation;⁶³ where towards each claim construction, both parties brought in their experts in order to be an extrinsic evidence to support their contentions on claim construction. It was to be reminded by recurring to United States case law, however, that expert testimony is extrinsic evidence, which definitely is conducive to “shed useful light on the relevant art,”⁶⁴ but this extrinsic evidence “may be used only to help the court come to the proper understanding of the claims; it may not be used to vary or contradict the claim language.”⁶⁵

After having gone through all the testimonies, the trial court, the IP and IT Court pointed out that the patented invention of the Thai Patent No. 18749 is a product obtaining only from dry granulation process, and since production of defendant’s

⁶¹ See U.S. Patent No. 6,294,197, Public Patent Application Information Retrieval, Image File Wrapper, 07-31-2000/REM/Applicant Arguments/Remarks Made in an Amendment, p. 12.

⁶² See U.S. Patent No. 6,294,197, Public Patent Application Information Retrieval, Image File Wrapper, 02-02-2000/1449/List of References cited by applicant and considered by examiner, p. 1.

⁶³ An interesting, rather bizarre, explanation on this matter of the claim covering wet process was that Robert Wagner, one of the inventors who testified in the Intellectual Property and International Trade Court for Novartis AG insisted that claim 1 covered all the processes without acknowledging the prosecution history and all other matters, except for the languages of the claims themselves, not even the specification by pointing out that the part which said that “[t]he process is carried out in the absence of water, i.e. it is a dry compression method” was one of the preferred processes and exemplifying that a wet process can even involve a method in which when the machine is too hot, one uses a wet towel to rub the machine to cool it down.

⁶⁴ Bose Corp. v. SDI Techs., Inc., 828 F. Supp. 2d 415, 417 (D. Mass. 2011), aff’d, 558 F. App’x 1012 (Fed. Cir. 2014) quoting Phillips v. AWH Corp., 415 F.3d 1303, 1317 (Fed.Cir.2005) (en banc).

⁶⁵ Bose Corp. v. SDI Techs., Inc., 828 F. Supp. 2d 415, 417 (D. Mass. 2011), aff’d, 558 F. App’x 1012 (Fed. Cir. 2014) quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1584 (Fed.Cir.1996).



drugs only involve wet granulation process as submitted to the Thai Food and Drug Administration (Thai FDA), defendant's drugs do not fall within the claims of plaintiff's invention.⁶⁶ On the issue of invalidity, the Court found that the claimed invention of the Thai Patent No. 18749 differs from that of the U.S. Patent No. 5,399,578; therefore, the '578 patent is not a prior art anticipating or rendering the '197 patent or the Thai Patent No. 18749 obvious.⁶⁷

On appeal, the Supreme Court affirmed claim construction of claim 1 to be a product-by-process claim and found that the claimed invention maintains its novelty as held by the trial court, but the U.S. Patent No. 5,399,578, particularly its claims including examples 92 and 93 of the specification in combination with books and treatises⁶⁸ disclosed the invention as claimed by Thai Patent No. 18749 to be obvious to a person having ordinary skill in the art in light of explanations made by expert witnesses having no relation nor interest with any parties,⁶⁹ and for various other reasonings and holdings, the Thai Patent No. 18749 was, therefore, invalidated in its entirety.⁷⁰

5. Solutions and Recommendations

In this article, the issues on prosecution history from the jurisdiction where it has been most widely used and has been treated as one main intrinsic evidence standing together with the claims and the specification being supported by the extrinsic evidence, such as dictionaries, treatises and expert testimonies – the United States – has been explained in combination with the explanation on doctrinal rules related to prosecution

⁶⁶ See Black Case No. TP 151/2551 – Black Case No. TP 19/2552 – Red Case No. TP 81 – 82/2555.

⁶⁷ See Black Case No. TP 151/2551 – Black Case No. TP 19/2552 – Red Case No. TP 81 – 82/2555.

⁶⁸ See, e.g., Herbert A. Lieberman, Leon Lachman, and Joseph B. Schwartz, eds., *Schwartz-pharmaceutical Dosage Forms: Tablets*, vol. 1 (New York: Marcel Dekker, 1980); Herbert A. Lieberman, Leon Lachman, and Joseph B. Schwartz, eds., *Schwartzpharmaceutical Dosage Forms: Tablets*, 2nd ed., vol. 1 (New York: Marcel Dekker, 1989); Leon Lachman, Herbert A. Lieberman, and Joseph L. Kanig, *The Theory and Practice of Industrial Pharmacy* (Philadelphia: Lea & Febiger, 1986).

⁶⁹ Supreme Court 9832 – 9833/2560, pp. 54 – 70.

⁷⁰ Supreme Court 9832 – 9833/2560, pp. 85 – 87.

history, i.e., prosecution history estoppel and prosecution history disclaimer,⁷¹ followed by the exposition on Thai prosecution history. The weakness of not having or not having a sufficiently informative prosecution history or patent file recordings has been reckoned and an exemplified solution through empirical observation in patent cases in the court of law in Thailand pointing out how prosecution history of foreign counterpart patents played significantly dispositive roles in supporting courts with lack of information in their jurisdictions to be adequately and acceptably facilitated not to rely just upon the constraint created by the instructively deficient facts and records of the documentation of their country's patent office, but to rest upon wider reliable sources to assist them in fact finding tasks to be able to deliver fair and justifiable decisions on patent litigations to all the parties involved. This finding is not only practical for the courts, but also useful for other related individuals such as the competitors or the would-be infringers as well as any other persons interested in particular patents.

It is, therefore, highly and advisably recommended that the prosecution history of counterpart patents, for example, the United States prosecution history be critically scrutinized and attentively utilized for the analysis of the Thai counterpart patent and more importantly the same kind of documentation should be comprehensively inscribed in Thailand for it to be the most dependable and trustworthy source of information of the patent, or patent application for one to seek for in times of need, specifically when one is alleged of patent infringement or threatened of patent invalidation so as for one to be suitably and properly equipped to deal with the cases, or even for one to be able to make a thorough study of a patent or patent application as one desires. This may not be easily completed, specifically in a short period of time; notwithstanding, what can be preliminarily done is the implementation and enforcement of the Ministerial Regulations⁷² requiring foreign examination report to be submitted to the Thai DIP to include submission of prosecution history or the link to file wrapper as well.

⁷¹ Due to the limitation of the length of this article, the detailed analysis of the said two doctrines has not been written here.

⁷² Ministerial Regulations No. 22 (B.E. 2542) (1999) Issued under the Patent Act B.E. 2522 (1979), Clause 13 para 3.



There may be an intensive and extensive study of how to establish such an effective system with efficient result of prosecution history to be directly utilized by interested people and to be indirectly employed by the courts to create concerned legal doctrines to invoke functional and operable tools to cope with the complication and sophistication of patent litigations done in the future in Thailand. The said study is strongly recommended by the research foundational to this article.

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