Section 102 and the MPEP

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I. INTRODUCTION

Patent law, developed by Congress and refined in the courts, is interpreted and put into rules governing its practice by the United States Patent & Trademark Office (USPTO). The rules that govern practice in the USPTO are codified in Title 37 of the Code of Federal Regulations.[1] But many of the intricacies of patent practice are dealt with in the Manual of Patent Examining Procedure, or MPEP.[2]

Though the MPEP is often considered a definitive guidebook of patent practice, its purpose is to guide patent examiners in examining patent applications. Practitioners should thus keep in mind that the MPEP has no authority of law. As the Federal Circuit has recognized, "The MPEP sets forth PTO procedures; it is not a statement of law."[3] Nevertheless, due to the realities of patent practice, the USPTO's interpretation of the law in the MPEP is often treated as the final word regarding issues that confront day-to-day examination of patent applications.

One area where the USPTO's interpretation of the patent laws has a paramount effect on patent prosecution is in the definition of what constitutes "prior art." Section 102 of the Patent Act,[4] consisting of subsections (a) through (g), outlines the various types of activities and references that may constitute prior art and thus can be used to reject a patent application. Activities, such as publishing, patenting, and public use, may qualify under multiple subsections of section 102. Reflecting the complexity of the statute itself, the law related to section 102 has been clarified in the MPEP to resolve a number of issues that have been decided by Congress or by the courts—sometimes in seemingly inconsistent ways. The possible outcomes can be dizzying to a novice practitioner.

This paper deals with just a few of the issues, specifically how the courts have resolved issues surrounding section 102 and how the USPTO has implemented these laws into their guidebook, the MPEP.

II. WHAT CONSTITUTES A "PRINTED PUBLICATION"

In both subsections (a) and (b), section 102 defines prior art to include printed publications. But this begs the question of what is a "printed publication." In particular, a common issue for printed publications concerns how readily the printed publication is accessible to the public—an issue that presents itself in different ways for different types of publications. Other issues concern requirements that materials be available to the public and that they be sufficiently disseminated to the public to constitute a "publication."

1 *See generally* 37 C.F.R. § 1 *et seq*.

2 *See* Manual of Patent Examining Procedure, 8th ed., rev. 7 (Jul. 2008) (hereinafter "MPEP").

3 *Regents of the Univ. of New Mexico v. Knight*, ___ F.3d ___, ____ (Fed. Cir. 2003) (quoting *Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1180 n.10 (Fed. Cir. 1995)).

4 35 U.S.C. § 102.

A. Electronic Publications

With the pervasiveness of electronic communication and media, and the resulting abundance of information available on the Internet, electronic publications can be a rich source of prior art. But electronic publications need not be physically printed, and they are usually not distributed via the same channels as standard printed materials. Electronic publications, therefore, present unique issues when they are asserted to be prior art under section 102.

The Federal Circuit recently dealt with issues involving electronic publications in *SRI International Inc. v. Internet Security Systems Inc*.[5] In this case, which involved four patents related to cyber security and intrusion detection, SRI brought an action against Internet Security Systems for infringement of the relevant patents. Internet Security Systems countered that the patents were invalid based, at least in part, on certain electronically available materials.[6]

One of the alleged prior art references was a paper that an SRI employee posted in 1997 on an FTP server. Since this was more than a year before the patent filing date in issue, this paper would be considered prior art under § 102(b). The paper was kept on the FTP server for a few months. The name of the file used for posting the paper was based on an acronym of the conference for which the paper was intended.[7] Even though the FTP site was theoretically accessible to anyone with an Internet connection, the purpose of placing the paper on the server was not to make it accessible to researchers, but rather to facilitate peer review.

Based on these facts, the court found that the paper was not prior art. In particular, since the paper had not been catalogued, it would have been difficult for members of the public to find. In reaching this conclusion, the court considered factors including: (a) the lack of an index or catalog, and (b) lack of evidence demonstrating public knowledge of the paper.[8]

Based on the court's rationale, it is likely that the paper would have been deemed prior art if evidence existed that the paper was indexed by a search engine while it was posted on the FTP server, since a search engine could have made the paper

5 511 F.3d 1186 (Fed. Cir. 2008).

6 *Id.* at 1191-92.

7 *Id.* at 1190. The path of the electronic file was: ftp://ftp.csl.sri.com/pub/emerald/ndss98.ps. *Id.*

8 *Id.* at 1196-98. This situation can be contrasted with that in *Bruckelmyer v. Ground Heaters, Inc.*, 445 F.3d 1374 (Fed. Cir. 2006), where the court found that a Canadian patent application, properly abstracted, indexed and catalogued, was a printed publication. The court explained: "[T]he [Canadian] patent was classified and in dexed, similar to the abstract in Wyer, further providing a road map that would have allowed one skilled in the art to locate the [patent] application." *Bruckelmyer*, 445 F.3d at 1379.

readily accessible to the general public. Alternatively, had the link to the paper been posted on a public message board, the court would also have likely found that the paper qualified as prior art. Hence, SRI may have narrowly escaped prior art that might have invalidated its patents.

This case reflects some generally applicable rules concerning electronic publications, also reflected in the MPEP. Clearly, electronic publications, such papers accessible via the Internet or online databases, are considered printed publications if the information is accessible to persons concerned with the art.[9] In other words, the information does not have to be "printed" to be a "printed publication." Conversely, internal company documents that are intended to be confidential are not considered "printed publications" and thus cannot be used as prior art, no matter how many copies are distributed. Finally, web pages and other electronic content must be publicly available as of the date the content was publicly posted. The web pages should be dated, indexable, and not temporal in nature.[10]

B. Thesis in a Library

Another area in which the definition of a "printed publication" is tested is when a small number of copies of a paper—such as a graduate thesis—are put in a library. The Federal Circuit dealt with this issue in *In re Cronyn*.[11]

Cronyn related to a patent application for a chemical compound for cancer treatment. The applicant was a professor of chemistry at Reed College, in Portland Oregon. The college required thesis submissions by its students, which the college kept in the library of the chemistry department. The library stored each thesis shelved and indexed by index cards, filed alphabetically by student name, and kept in a shoe box.[12]

After reviewing the facts of the case, the Federal Circuit found that the thesis was not a printed publication under section 102 because the thesis was not catalogued or indexed in a meaningful way. This conclusion was based largely on the finding that the thesis could be found only if the researcher's name was already known.[13] A person of ordinary skill in the art, when researching for information available in the public domain, is likely to look by the subject, and not the researcher's name.

9 MPEP § 2128. Nevertheless, it is immaterial whether someone in the public actually looked at a publication as long as the publication is accessible to the public through a library or patent office. *See In re Wyer*, 655 F.2d 221 (CCPA 1981); *In re Hall*, 781 F.2d 897 (Fed. Cir. 1986)

10 *Id.* For example, a streaming video that is temporarily displayed on the screen is temporal, and thus not a printed publication under section 102.

11 890 F.2d 1158 (Fed. Cir. 1989).

12 *Cronyn*, 890 F.2d at 1158-59.

13 *Id.* at 1161.

Therefore, the only practical way that the public could locate the thesis would be by being informed by a thesis committee member. The court also found that there was no attempt made by the inventor to make the research available to the public, since the purpose of the thesis was to provide an opportunity to the student to present the work in more formal and thorough manner compared to a term paper.[14]

As this case indicates, the indexing requirement for printed publications in a library closely tracks the practical realities of scientific research. It would be unfair to include in the scope of the prior art knowledge that would not be practically available to the public, and just being theoretically available is not sufficient. The MPEP recognizes this distinction, contrasting the facts in *Cronyn* with those in *In re Hall*.[15] In *Hall*, a doctoral thesis was publicly accessible because it was indexed, cataloged and shelved according to general library cataloging and shelving practices that made the thesis available to the public before the critical date.[16] Accordingly, the practices of the library where a reference is found may be dispositive as to whether the reference is indeed a printed publication under section 102.

C. Slides and Poster on Display

Generally, a reference has to be actually published for a reference to be a "publication" under section 102, which implies some sort of distribution to the public—even if that distribution is minimal. The extent to which a printed publication must actually be distributed to the public was tested in *In re Klopfenstein*,[17] a case that may have significantly pushed the boundaries of material that qualifies as a printed publication under section 102.

In *Klopfenstein*, a slide presentation was printed and pasted onto a poster and then displayed at two academic conferences, two years before the application filing date. Specifically, the poster was displayed at the American Association of Cereal Chemists for two and a half days, and at an Agriculture Experimentation Station at Kansas State University for half a day. The posters included every element of the claimed invention, and they did not contain any confidentiality restrictions or any notices prohibiting note taking or manual reproduction of their content. The posters were also displayed during a presentation of the inventors, which included a slides show with additional information related to the posters.[18]

14 *Id.*
15 781 F.2d 897 (Fed. Cir. 1986).
16 MPEP § 2128.01.
17 380 F.3d 1345 (Fed. Cir. 2004).
18 *Klopfenstein*, 380 F.3d at 1347.

The court held that the transient display of slides in a presentation is not considered printed publication for purposes of section 102.[19] However, and somewhat surprisingly, the court found that the posters did constitute a "printed publication," even though there was no evidence that copies of the posters were made or distributed at the conference. Although the reference was not disseminated or indexed as a catalog, in reaching its finding the court considered the following facts highly relevant: (a) the length of time the posters were displayed, which was more than the "transient" slideshow; (b) the expertise of the audience; (c) the lack of expectation of confidentiality from the audience; and (d) the ease with which the material could have been copied.[20]

According to the MPEP, a reference is proven to be a "printed publication" upon a satisfactory showing that the document has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, can locate it.[21] However, the criteria of "dissemination" identified in the MPEP may have been expanded significantly by the Federal Circuit in *Klopfenstein*.

III. EXCEPTIONS TO THE STATUTORY BARS

Several of the subsections of section 102 require that a patentable invention be novel. Even if the invention is novel, the patentee may not unreasonably delay filing a patent for the novel invention. The patentee is encouraged to disclose the invention to public as soon as possible and discouraged from commercially exploiting the exclusivity of invention beyond the patent term.[22] Section 102(b) therefore places statutory bars on unreasonable delays in patent filing.[23]

More specifically, section 102(b) states:

A person shall be entitled to a patent unless . . . the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States.

As apparent from the statute, section 102(b) bars an inventor from patenting an invention if the invention was on sale, offered for sale, or in public use in the United

19 *Id.* at 1349 n.4.

20 *Id.* at 1350-52.

21 MPEP § 2128.01.

22 MPEP § 2133.03 (citing *RCA Corp. v. Data Gen. Corp.,* 887 F.2d 1056, 1062 (Fed. Cir. 1989)).

23 *J.A. La Porte, Inc. v. Norfolk Dredging Co.*, 787 F.2d 1577, 1583 (Fed. Cir. 1986) ("one of the principal policies of § 102(b) … is to encourage early filing").

States before the critical date—*i.e.*, more than one year before the filing date of application.[24]

Notwithstanding the plain language of section 102(b), an inventor can escape both the public use bar and the on-sale bar if the implementation on sale or in public use was not "ready for patenting" and therefore did not qualify as an "invention."[25] An implementation is ready for patenting if the invention has been reduced to practice and the reduced implementation is known to work for the intended use of the claimed invention.[26]

This succinctly stated rule is a fact-intensive inquiry that can lead to varying results based on the facts at issue.[27] Consequently, USPTO should provide in MPEP a balanced set of fact patterns that guide the examiner to fairly analyze the facts of a particular case. The MPEP, however, can mislead the examiner because it provides one-sided fact patterns where the invention was determined as ready for patenting without adequately analyzing if the reduced embodiment worked for its intended use.[28] The USPTO should therefore follow Federal Circuit's jurisprudence and provide a balanced set of fact patterns to help the examiner in fairly analyzing when an invention is ready for patenting.

A. Negotiations Before the Critical Date

In *Honeywell International Inc. v. Universal Avionics Systems Corp.*,[29] Honeywell invented a virtual look ahead system that alerted an aircraft pilot about any imminent threat to the aircraft from the approaching terrain. The system mapped the flying aircraft on a virtual map including terrain information. The system then used the terrain information, the aircraft location and aircraft's flight path to determine any imminent threats caused by the terrain to the aircraft. Honeywell filed and obtained five patents on the system and the earliest patent had a filing date of July 31, 1995.

24 35 U.S.C. § 102(b); MPEP 2133.

25 An invention is barred from being patented if one year before the filing date, (1) the invention is on sale or offered for sale, and (2) the invention is ready for patenting. MPEP 2133.03(c) (citing *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 66-68, 119 S.Ct. 304, 311-12, 48 USPQ2d 1641, 1646-47 (1998)).

26 *Id.*

27 *Compare Atlanta Attachment Co. v. Leggett & Platt, Inc.*, 516 F.3d 1361, 1366-68 (Fed. Cir. 2008) (invention found ready for patenting although the prototype was still being perfected after the critical date and later improvements were made to the prototype), *with In re Omeprazole Patent Litigation*, 536 F.3d 1361, 1373-76 (Fed. Cir. 2008) (invention found not ready for patenting although the embodiment included all limitations of later claims before the critical date but was undergoing clinical trials to determine if the embodiment worked for its intended purpose).

28 *See* MPEP § 2133.03(c).

29 488 F.3d 982 (Fed. Cir. 2007).

In January and July of 1994, before the critical date, Honeywell negotiated with Gulfstream and Canadair to integrate Honeywell's look ahead system in their luxury planes. The negotiated agreement required the look ahead system to be tested with human pilots in a genuine cockpit setting before integrating the look ahead system in luxury aircrafts.[30] Before the critical date, some of the test flights were videotaped and a reporter published an article about the luxury aircrafts with the look ahead system.[31] The tests did not lead to any alterations in the look ahead system and the system was integrated into the luxury aircraft.[32]

In 2000, Universal and Sandal (collectively referred to as "Universal") developed their versions of look ahead system and Honeywell asserted its issued patents against them.[33] Universal argued that Honeywell's patents were invalid because of public use and premature sales activity. However, the Federal Circuit ruled that the publically used and on-sale implementation was not ready for patenting and therefore Honeywell was not barred from later patenting the look ahead system.

According to the Federal Circuit, an invention is ready for patenting once the invention has been reduced to practice. In other words, the reduced embodiment "meets every limitation and operates for its intended purpose."[34] The Federal Circuit explained that Honeywell was testing its invention during the flight tests with Gulfstream and although the tests did not alter any part of the claimed system, Honeywell performed the tests to determine whether the invention worked for its intended purpose.[35] Because Honeywell was still determining if the look ahead system worked for its intended use, the system was not ready for patenting. Accordingly, the offer for sale of the look ahead system and the flight tests did not bar Honeywell from later patenting the invention.

The Federal Circuit's analysis therefore gives the patentee ample opportunity to test the invention and simultaneously pursue commercial opportunities as long as the invention has not been reduced to practice and determined suitable for its intended use. However, a patent examiner following MPEP may not be as benevolent to the patentee.

B. MPEP Potential to Misapply "Ready for Patenting"

Although, the MPEP states the same rule as Federal Circuit, the cases and fact patterns cited around the rule may lead an examiner to believe otherwise. The

30 *Id.* at 996-98.
31 *Id.* at 997-98.
32 *Id.* at 996.
33 *Id*. at 988.
34 *Id*. at 997 (citing *Eaton v. Evans*, 204 F.3d 1094, 1097 (Fed. Circ. 2000)).
35 *Id*. at 997.

MPEP gives three fact pattern examples to the examiner about when an invention has been reduced to practice and therefore ready for patenting.[36] None of these examples discuss that the reduced embodiment needs to work for it intended purpose in addition to meeting every claim limitation. Instead, some of the examples suggest otherwise.

The first example describes a case where the invention was barred from patenting because the embodiments sold before the critical date met every limitation of the claim and remained unchanged after the critical date.[37] Unlike Honeywell, there is no discussion of whether the invention worked for its intended use before the critical date.

The second example describes a case where a product by process claim was held invalid because the product was on sale before the critical date.[38] The pre-critical date seller did not even know that the compound being sold included the later claimed form of the compound and certainly did not know if the product was suitable for intended use of the later claimed form of the compound.[39] This fact pattern, however, is in direct contrast with Honeywell where the patentee knew that it was selling the later claimed look ahead system but was not sure if the system worked for its intended purpose. Nevertheless, the examiner would not appreciate the difference between a fact pattern like Honeywell and this example because MPEP does not describe Honeywell or similar fact patterns.

The third example describes a case where the patentee sold the later claimed lacrosse sticks before the critical date.[40] The claimed sticks were intended to have "improved playing and handling characteristics," and the patentee argued that the intended use for the claimed sticks was not known at the time of the sale. The court rejected patentee's argument stating that such an intended use is a subjective quality and the invention was reduced to practice because the reduced embodiment included all the claimed limitations.[41] The MPEP or the cited case does not guide the examiner on how to distinguish between "subjective" intended use as opposed to "objective" intended use. Like Honeywell, the lacrosse sticks could have been subject to objective test measurements to determine if the claimed sticks had better handling and playing characteristics as compared to prior art. However, MPEP does not describe Honeywell or any other case to educate the examiner on how to distinguish between subjective intended use or objective intended use.

36 *See* MPEP § 2133.03(c).

37 MPEP § 2133.03(c) (citing *Vanmoor v. Wal-Mart Stores, Inc.,* 201 F.3d 1363, 1366-67 (Fed. Cir. 2000)).

38 *See* MPEP § 2133.03(c) (citing *Abbott Labs v. Geneva Pharms, Inc.,* 182 F.3d 1315, 1319 (Fed. Cir. 1999)).

39 *Id*.

40 MPEP § 2133.03(c) (citing *STX LLC. v. Brine Inc.*, 211 F.3d 588, 591 (Fed. Cir. 2000)).

41 *Id.*

In sum, the MPEP describes three examples for the fact-intensive analysis of when an invention is ready for patenting. None of the examples, unlike Honeywell, describe fact patterns where the invention includes all the claimed limitations but still is not ready for patenting because it was not known if the invention worked for its intended use. These examples therefore do not provide the examiner with a balanced framework for applying the on-sale bar and public use bar to a case. Accordingly, the PTO should add more fact patterns to MPEP and give the examiner a better balanced framework for "ready for patenting" analysis.

IV. CONCLUSION

This paper has provided just a few sample issues, background, and analysis of the USPTO's application of section 102 jurisprudence, as it is reflected in the MPEP. Although this paper does not describe many facets of section 102, the paper gives a glimpse of a patent examiner's analytical framework. Patent practitioners are therefore encouraged to keep up with changes in MPEP in addition to changes in Federal Circuit's jurisprudence because a patent examiner is likely to analyze rejections and create prosecution history based on MPEP regardless of the subtleties of Federal Circuit's jurisprudence.

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