According to current U.S. practice, a published or patented U.S. application with an earlier U.S. filing date will be considered as prior art against a U.S. application with a later effective filing date for purposes of both novelty (35 U.S.C. § 102(e)) and obviousness (35 U.S.C. § 103), if certain additional conditions are satisfied. These additional conditions relate to the inventors named in the applications and whether the inventions claimed in the applications were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person (35 U.S.C. § 103(c)).

This paper will provide a brief historical perspective of the development of U.S. law pertaining to the subject topic, a description of current law and practice and the public policies supporting it, and will conclude with several examples illustrating application of current U.S. practice. This paper will not address current principles of U.S. law that may affect the prior art status of a pending application such as not giving prior art effect to a foreign priority date under In re Hilmer, 359 F.2d 859 (CCPA 1966) or being able to establish a date of invention earlier than the effective filing date of a prior art patent document to remove that document as prior art. This paper will address
the doctrine of double patenting and the effect it has on the granting of multiple patents claiming inventions that are novel, but perhaps not obvious over each other.

Background

Prior to introduction of the Patent Cooperation Treaty and the American Inventors Protection Act, § 102(e) precluded the grant of a patent when

the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent.

This section codified the doctrine announced by the Supreme Court in Alexander Milburn Co. v. Davis Brownville Co., 270 U.S. 390 (1926). In that case, the Court considered whether an invention disclosed (but not claimed) in an earlier application could be used to anticipate a later invention of the same subject matter as of the date the application for patent was filed, rather than the date the patent issued. The Court concluded that the first application should be considered prior art for anticipation purposes because it was clear from the facts that the inventor named in the first application was the first inventor and the delays of the Patent Office in granting the patent ought not to change the effect of what had been done. The first inventor had done all that he could do to make his description public through the patent system. He had taken steps that would make his invention public as soon as the Patent Office did its work.

In Hazeltine Research, Inc. v. Brenner, 382 U.S. 252 (1965), the Supreme Court addressed the question of whether § 102(e) applied to the determination of prior art
under the nonobviousness requirement. The Supreme Court held that unclaimed disclosures in issued United States patents are effective as of the application filing date for purposes of non-obviousness under § 103 as well as for purposes of anticipation under § 102(e). The argument was made that the term “prior art” as used in § 103, really was intended to apply only to art previously known to the public. While the court found the argument to be interesting, it found that it provided no reason to depart from the plain holding and reasoning in the Milburn case. The court found that when the first applicant had filed its patent application, he had done what he could to add his disclosures to the prior art through the patent system. The rest was up to the Patent Office.

Following enactment of The American Inventors Protection Act on November 29, 1999, and later revision on November 2, 2002, § 102(e) now reads as follows:

The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
This section now applies the principles of the Milburn and Hazeltine decisions to published U.S. patent applications. In applying this section, it is important to note that the term “another” means a different inventive entity. In re Land, 368 F.2d 866 (CCPA 1966). The inventive entity is different if not all inventors are the same. It is also important to note that in applying this section with respect to a PCT international application that designates the United States, it is not necessary that the applicant enter the National Stage in the United States in order for a published PCT international application designating the United States to apply as prior art under § 102(e), so long as other conditions of this section are satisfied. In this respect, the conditions are: (1) the PCT international application was filed after November 28, 2000; (2) the PCT international application designates the United States; and (3) the PCT international application be published under PCT Article 21(2)(a) in the English language.

Anticipation (lack of novelty) is established only if all the elements of an invention as stated in a claim are identically set forth or inherent in a single prior art reference. Transclean Corp. v. Bridgewood Services, Inc., 290 F.3d 1364 (Fed. Cir. 2002). An anticipating inherent feature or result must be consistent, necessary and inevitable, not merely possible or probable from the teachings of the prior art.

**Obviousness - Section 103**

In determining obviousness under § 103, among the factual inquiries that are made in making this determination is a determination of the scope and content of the prior art. Graham v. John Deere Co., 383 U.S. 1 (1966). Subject matter that is considered prior art under 35 U.S.C. § 102 also can be used to support a determination
of obviousness under § 103, unless certain conditions are satisfied. Thus, the disclosures of a United States patent application become prior art as of the earliest U.S. effective filing date, when a U.S. patent application is published or a patent issues.

Following several court decisions suggesting that an earlier invention, which is not public and has not been made the subject of a patent application, could be used as prior art with respect to a later invention made by another employee of the same organization, § 103(c) was enacted to exclude certain information as prior art for a determination of obviousness under § 103. Originally enacted in 1984, this exclusion was limited to prior art qualifying under § 102(f) (derived subject matter) or § 102(g) (a prior invention of another made in the United States that had not been abandoned, suppressed, or concealed). In enacting this provision, it was recognized that new technology often is developed by using background, scientific or technical information known within an organization but unknown to the public. By disqualifying such background information from prior art, Congress intended to encourage communication among members of research teams, patenting, and, consequently, public dissemination of the results of team research. The disqualification applied to consideration of prior art for purposes of obviousness, but it did not apply to or affect subject matter that qualifies as prior art for anticipation purposes under § 102. A patent applicant urging that subject matter is disqualified has the burden of establishing that it was commonly owned at the time the claimed invention was made.

With the adoption of the American Inventors Protection Act in 1999, § 103(c) was amended to include within its scope § 102(e) prior art. This section now reads as follows:
Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

The term "commonly owned" has been interpreted by the PTO to mean that the subject matter, which would otherwise be prior art to the claimed invention, and the claimed invention are entirely or wholly owned by the same person(s) or organization(s) at the time the claimed invention was made. The requirement for common ownership at the time the claimed invention was made is intended to preclude obtaining ownership of subject matter after the claimed invention was made in order to disqualify that subject matter as prior art against the claimed invention. Common ownership can be established by a simple, clear statement by the applicants or their representatives of record that common ownership within the meaning of 35 U.S.C. § 103(c) exists.

When the conditions of § 103(c) are satisfied, § 102(e) prior art can only be used to show lack of novelty of an invention claimed in a subsequently filed application of another. It cannot be used as prior art for a determination of obviousness.

Double Patenting

The doctrine of double patenting seeks to prevent the unjustified extension of patent exclusivity beyond the term of a patent. It also seeks to ensure that if multiple
patents are granted on patentably indistinct inventions (i.e., inventions that are novel with respect to each other but obvious in view of the prior art) that there is common ownership throughout the enforceable life of the patents. Double patenting may exist between an issued patent and an application filed by the same inventive entity, by an inventive entity having a common inventor with the patent, and/or by the owner of the patent.

There are generally two types of double patenting that could prevent the grant of a patent. The first type is known as the “same invention” or statutory-type double patenting based on 35 U.S.C. § 101, which states in the singular that an inventor “may obtain a patent.” For this type of double patenting principle to apply, a claim in one application or patent would have to be identical in scope to a claim in another application or patent. A reliable test for double patenting under § 101 is whether a claim in an application could be literally infringed without literally infringing a corresponding claim in a patent. In re Vogel, 422 F.2d 438 (CCPA 1970).

The second type is the obviousness-type double patenting based on a judicially created doctrine, which is grounded in public policy and primarily intended to prevent prolongation of the patent term by prohibiting claims in a second patent that are not patentably distinct from claims in the first patent. Obviousness-type double patenting is established by determining whether any claim in one application/patent defines an invention that is merely an obvious variation of an invention claimed in another application/patent. Because a double patenting analysis focuses on the claims of an application or patent, it is not proper to refer to the disclosure of the application or patent...
as prior art. However, the specification can always be used as a dictionary to learn the meaning of a term in a patent claim.

Statutory-type double patenting can be avoided by canceling the claims from all but one application or by amending the conflicting claims so that they are not coextensive in scope. Obviousness-type double patenting can be avoided by filing an appropriate terminal disclaimer. 37 C.F.R. § 1.321(c). An appropriate terminal disclaimer disclaims the terminal part of the term of a second patent so that it does not extend beyond the term of the first patent. An appropriate terminal disclaimer must also include a provision that any patent granted on the application shall be enforceable only for and during such period that said patent is commonly owned with the application or patent which formed the basis of the determination of double patenting. This provision is necessary to avoid the potential problem of dual ownership of patents claiming patentably indistinct inventions. The filing of an appropriate terminal disclaimer to obviate a double patenting rejection is not considered to be an admission of the propriety of a double patenting determination, but serves simply to remove the issue of double patenting, and raises neither a presumption nor estoppel on the merits of a double patenting determination. Quad Environmental Technologies Corp. v. Union Sanitary District, 946 F.2d 870 (Fed. Cir. 1991).

Examples

The following examples illustrate the application of the principles and practices described above.

Example 1:
Assume:  
• A is inventor in applications 1 and 2.  
  • Invention xy is not described in application 1, but is obvious  
    over invention x in view of prior art.

In example 1, a patent could issue on invention xy because the patent on the first  
application is not prior art (same inventor), but only if a proper terminal disclaimer is filed  
to avoid obviousness-type double patenting. So any patent issued on the second  
application would have a term expiring on the same date as the first patent and the two  
patents would have to remain commonly owned to be enforceable.

Example 2:

Assume:  
• A is inventor in applications 1 and 2.  
  • Invention xy is described (but not claimed) in application 1,  
    and is obvious over invention x in view of prior art.

In Example 2, the same result as in Example 1. The fact that invention xy was  
described in the first application does not affect the result.
Example 3:

Assume: • A is inventor in applications 1 and 2.

- Invention xy is described (but not claimed) in application 1, and is novel and not obvious from invention x in view of prior art.

In Example 3, a patent could issue on application 2 for the full statutory term. The first application is not prior art (same inventor), and double patenting does not apply because invention xy meets all requirements for patentability over the claim to x.

Example 4:

Assume: • A is a different inventive entity than AB.

- Invention xy is not described in application 1, but is obvious over invention x in view of prior art.

- Inventors A and AB have no obligation to assign inventions to a common owner at the time they are made.
In Example 4, the patent issued on application 1 is § 102(e) prior art against application 2, and the claim to xy in application 2 would be considered obvious over the disclosure in application 1. The claim in application 2 could also be rejected on the ground of obviousness-type double patenting (based on a common inventor A) over the claim to x in the patent issued on the first application. A patent would not issue on application 2.

Example 5:

Assume:

- A is a different inventive entity than AB.
- Invention xy is not described in application 1, but is obvious over invention x in view of prior art.
- Inventors A and AB have an obligation to assign inventions to a common owner at the time they are made.

In Example 5, a patent could issue on invention xy, but only if a proper terminal disclaimer is filed to avoid obviousness-type double patenting. Although the patent to x is prior art to the second application under § 102(e), it does not anticipate invention xy, and can be removed as prior art for a determination of obviousness under § 103(c). An
appropriate terminal disclaimer would avoid the obviousness-type double patenting based on invention xy being obvious over invention x in view of prior art. Note that the common ownership requirements of § 103(c) and for an appropriate terminal disclaimer operate at different points in time - for § 103(c) it is at the time the inventions were made; for an appropriate terminal disclaimer it is at the time the terminal disclaimer is signed.

Example 6:

Assume:
• A is a different inventive entity than AB.
• Invention xy is described (but not claimed) in application 1, and is obvious over invention x in view of prior art.
• Inventors A and AB have no obligation to assign inventions to a common owner of the time they are made.

In Example 6, a patent would not issue for invention xy because the first patent describes the invention xy and constitutes prior art under § 102(e). It could not be removed under § 103(c) because that section does not apply when the prior art is applied for anticipation (lack of novelty) as distinguished from obviousness.

Example 7:
Assume:  • A is a different inventive entity than AB.

• Invention xy is not described in application 1, and is novel
  and not obvious from invention x in view of prior art.

• Invention A and AB have no obligation to assign inventions
  to a common owner of the time they are made.

In Example 7, a patent could issue for xy for the full statutory term. Since xy is
not obvious from x, the invention is patentable over the patent issued on the first
application.

Summary

The disclosure of a first-filed US application that is later published or becomes a
patent is prior art with respect to an invention claimed in a second application to another
for determining both novelty and obviousness (inventive step), unless the conditions of
§ 103(c) are satisfied. Where the inventions of both the first and second applications
are assigned or subject to an assignment to the same owner at the time they were
made, the disclosure of the first application can be used to show lack of novelty only
with respect to the invention claimed in the second application. The doctrine of double
patenting prevents an unjustified extension of patent term and ensures that multiple
patents claiming patentably indistinct inventions are commonly owned during their enforceable life.