## **Finding Backward Citations in Patent Data**

Backward citations are a primary component of proving inventiveness in new patent applications. These citations reference previous work or prior art that is considered relevant to a current patent application. However, when looking for these citations in patent data, it is important to know that they are not always published in the applications. Here, we will look at how backward citations are handled during the application process and how the process can affect where those citations appear in the data.

As an example, at the time of filing a US patent application, an Information Disclosure Statement (IDS) form is submitted with the application. This includes any citations the inventors/applicants feel are relevant to demonstrate how their invention differs from the prior art. Since not everyone does a thorough search of the literature before filing their application, in the US (as well as some other countries), the inventors/applicants must also submit any relevant prior art cited by other offices which examine applications of the patent family members within three months of publication in the respective office.

Examiners generally do not rely solely on the prior art supplied by inventors/applicants, and citations may be appended by the examiner as well as by the inventor/applicant. If the applicant did not provide any citations in the application, it is the job of the examiner, who is an expert in the field, to locate documents that are most closely related to the new invention. Even if an applicant does provide citations, examiners conduct their own searches based on how they interpret the invention and cite the art they believe is relevant to novelty and inventiveness.

Examiners also consider the prior art provided in the related PCT International Search Report (ISR). In the ISR, the WIPO examiner designates each citation as an X, Y, or A document. "X" indicates that a citation is novelty-killing. "Y" indicates that it is relevant to inventiveness, and "A" indicates that it is general state of the art. And, of course, they do review the art cited by the applicant. There is also an option for third parties to submit prior art within a specific time frame (often between publication and the first office action). All of this information becomes part of the file wrapper/record.

In the US, the publication of applications occurs 18 months after the priority filing. Therefore, it is often the case that publication occurs before the examination begins and thus before the examiner has had the opportunity to add relevant citations. In these cases, there may be no citations (other than ISR references) at the time the application is published.

While examiners try to find all relevant art in their initial search, they will also re-do their search prior to allowance to make sure they found everything. In the US, Form 892 is the "List of references cited by examiner". The citations on that list are the ones which are included in the grant publication and subsequently provided in CLAIMS Direct's XML in the technical-data/citations container. Therefore, the best way to find all the relevant backward citations for a patent is to look at the grant publication rather than the application.

To learn more about the citation data included in CLAIMS Direct's XML and how to search this data, see technical-data/citations and Citations.