

## **Appendix A: Conception and Reduction to Practice**

Conception and reduction to practice are the two steps required for determining when invention occurred, who invented it, and who might have rights in the invention.

Conception has been described as the formation in the mind of a definite and permanent idea of the complete invention as it would be applied in practice. The idea should be a specific, settled idea, and a particular solution to the problem at hand, not merely a general goal or research plan. Conception is proven by corroborating evidence such as contemporaneous documentation (for example, details of the conception recorded in a laboratory notebook).

Reduction to practice is when an embodiment is constructed (for example, a prototype) or performed (for example, an experiment) that meets all of the limitations of the invention and determines that the invention works for its intended purpose. Ideally, enough embodiments are performed to demonstrate that the inventors possessed all embodiments of what they claim and that no undue experimentation is required across those embodiments.

As an alternative to actual reduction to practice, there can be what is called "constructive reduction to practice," where the invention is described in writing or otherwise recorded in sufficient detail to demonstrate what the actual reduction to practice would be. A patent application drafted directly from the inventor's conception is an example of constructive reduction to practice.

Between conception and reduction to practice there can be intermediary steps or milestone details, such as an improvement to the initial invention or additional species in the genus of the invention, or a finding of unexpected results over prior work. Questions about conception, reduction to practice, intermediary steps or milestones, species within a genus, or unexpected results may be directed to the Intellectual Property Division of the Office of the Staff Judge Advocate of the U.S. Army Medical Research and Development Command.