



WHO IS AN INVENTOR?

The question, “Who is an inventor?” might more realistically be phrased as: “When I am in the middle of a research project and I think I may have made an invention, but fourteen different people contributed ideas, money, time, data, general expertise and moral support, am I the only inventor? And if I’m not, how in earth do I figure out who the real inventors are?”

RULE 1: Simply holding the title of “Department Head” does not make you an inventor. In the United States, you don’t qualify as an inventor if you didn’t have any direct involvement in the making of the invention – for example, if you played only a supervisory role. In fact, you *may* not qualify as an inventor even if you *did* have direct involvement in the making of the invention, but more about that later.

RULE 2: Contributing a million dollars to support the work that leads to the invention does not make you an inventor.

Rules 1 and 2 eliminate two rather large (and potentially troublesome) categories of individuals from the inventor list – which is not to say that these individuals haven’t made a worthwhile contribution to your invention. It’s just that the federal government has set out other criteria that an individual must meet to be named as an inventor on a United States patent application (and any resulting patent). So what *does* qualify an individual as an inventor?

RULE 3: To be an inventor, you must have made an invention.

It probably seems that we’re not making any progress, but stay with us here. The federal government has a set of rules (are you surprised?) for determining what constitutes the making of an invention. As you will see, an understanding of those rules is required to resolve the inventorship issue.

RULE 4: There are two separate parts to the making of an invention – conception and reduction to practice. An invention is deemed to have been made only when both of those parts have been completed.

So what is meant by “conception” and “reduction to practice?” One author explains these concepts succinctly: “Conception is the mental part: reduction to practice is the physical part.”¹

RULE 5: The conception of an invention consists of the means for achieving a desired result, even if only in the inventor’s mind. It is not sufficient for an inventor to simply recognize that a problem exists or that a particular result would be desirable. Rather, the inventor must have figured out a *complete* and *operative* means of accomplishing that result, such that no more than routine skill will be necessary to put the invention to use (i.e., reduce it to practice).

RULE 6: Reduction to practice of an invention (described earlier as the “physical part”) can be either “actual” or “constructive.” Remember that there is no invention

¹ Peter D. Rosenberg, Patent Law Fundamentals § 10.01 (2d ed. 1991)



without reduction to practice, but either *type* of reduction to practice will serve equally well to satisfy that requirement.

RULE 7: “Actual” reduction to practice is the successful physical use or carrying out of the invention to achieve the intended result. It usually (but not always) involves the construction and successful testing of a prototype.

RULE 8: “Constructive” reduction to practice is the filing of a patent application (with the U. S. Patent and Trademark Office) that discloses the invention completely enough for a person “skilled in the art” to put it into practice. Even though “reduction to practice” is usually thought of as the physical part of the inventive process, constructive reduction to practice requires no physical act other than preparing and filing the appropriate paperwork. Thus, the actual construction and testing of an invention is not required to have a valid patent.

You may be wondering what all this has to do with our original question, “Who is an inventor?” Let’s recap. We have a rule (Rule 3) that says you can’t be an inventor unless you have made an invention. We have several more rules (Rules 4 through 8) that tell you what has to happen for an invention to exist. What else?

RULE 9: While an invention may be the product of only one mind, it is quite possible for an invention to be the product of several, if not many, minds.

The only remaining question is, “out of all those people who contributed in some way to the making of the invention, which ones get the credit?”

RULE 10: Each individual who contributes to the *conception* of an invention is an inventor. Just contributing to the reduction to practice of an invention doesn’t count.

But, you say, the reduction to practice of an invention is frequently the most tedious and time-consuming part. Why shouldn’t the individuals who do that hard labor be rewarded by getting at least part of the credit? The answer to that question lies in the definition of conception (see Rule 5 above). For the conception part of the invention to be completed, the inventor must have formed (at least in his or her own mind) such a complete means of accomplishing the desired result that *no more than ordinary skill in the art* is required to achieve reduction to practice. Thus, by definition, the reduction to practice phase requires no unique or inventive input from anybody – only the customary skill and knowledge that a person in that field would normally be expected to have. This concept is borne out by the fact that reduction to practice may be accomplished simply by filing a patent application.

But, you say, this is the real world, and part (or even most) of the time it is not so easy to decide who contributed to conception and who only contributed to reduction to practice. In fact, it is probably difficult in many cases to determine at what point in the process you were conceiving and at what point you were reducing to practice. What is a beleaguered inventor to do? In some cases, it will be difficult to reach a definitive decision regarding inventorship (at least without the professional assistance of a patent attorney). However, a few more rules may point you in the right direction.



RULE 11: Everyone who contributes to the conception of the invention in its *final form* is entitled to inventor status.

The reference to “final form” in Rule 11 raises another important point:

RULE 12: Conception may occur during reduction to practice.

Wait a minute – what about the rule that reduction to practice does not (by definition, *cannot*) involve any inventive contribution? Consider the following scenario: Conception has occurred and the original inventor (i.e., conceiver) charges someone else (a graduate student? a lab technician?) with the responsibility for reducing that conception to practice. Things don’t go exactly as anticipated, and in the course of reduction to practice, that second person has to modify the original conception to make the whole thing work. That person, who was originally perceived only as a “reducer to practice,” is now a co-inventor (if the modification would not have been obvious to one skilled in the art). This sudden elevation in status is not due to the fact that (s)he successfully reduced the invention to practice, but rather because of his/her contribution to the *conception* of the invention, albeit a different invention from the one that was originally conceived. In fact, if in the course of reduction practice a technician makes a drastic modification of the original conception such that it results in a completely different invention, the technician will be the sole inventor of the new invention, to the exclusion of the original inventor(s)!

Now that we know what is required to qualify as an inventor (i.e., a contribution to the conception of the invention), it would probably be helpful to examine what is not required to qualify as an inventor:

RULE 13: All joint inventors do not have to make an equal contribution to an invention.

RULE 14: Among several joint inventors, it is not necessary to define exactly which part of the conception was contributed by each individual. The invention may be the result of a brain-storming session in which ideas contributed by several different individuals “fed” the development of the final concept.

RULE 15: Face-to-face contact is not required for collaboration between joint inventors.

RULE 16: It is not necessary for joint inventors to arrive at the inventive concept simultaneously. Different components may be contributed by different individuals at different times, and that is okay as long as each individual’s contribution relates to the entire invention in some manner.

Even if you have committed all these rules to memory, it is likely that you may still have difficulty in applying them to a particular situation. What happens if you reach the wrong conclusion?

RULE 17: A patent is invalid if it names an inventor who really is not, or fails to name an inventor who really is (unless the error can be corrected in accordance with specific procedures set forth in the U. S. Code).



Formerly, the erroneous addition or omission of even one inventor rendered the patent fatally and incurably defective, a rather harsh penalty considering the inherent difficulties. Under the current law, however, there is a procedure where it is possible to obtain a Certificate of Correction from the Commissioner of Patents, but only if the mistake was an honest one that occurred without any “deceptive intention” on the part of the true inventor(s).

Keeping in mind that idea of “deceptive intention”, following are a couple of rules that should keep you out of trouble:

RULE 18: Wishing doesn’t make it so. In a particular case, if it isn’t abundantly clear that you qualify as an inventor, search your conscience first – before you insist on being named in the patent application.

RULE 19: If you are, you are. False modesty will not eliminate you as an inventor in the eyes of the law, and if you insist on being excluded when you should be included, you are risking not only your own rights but those of your co-inventors.

Finally, there may be some comfort in knowing that even if you should arrive at an unshakable conviction concerning the true inventors of your invention, the entire situation may change when it gets in the hands of a patent attorney. For instance, if your total contribution to the invention turns out not to be patentable because it is not novel, your status as an inventor will be unceremoniously taken away.

Our final rule is a corollary of our first rule, and one that you have probably already figured out:

RULE 20: Holding the title of “Department Head” does not preclude you from being an inventor, either.

Faculty and staff of the University of Tennessee are encouraged to contact the University of Tennessee Research Foundation with their questions regarding inventorship.

Knoxville Address: University of Tennessee Research Foundation
UT Conference Center, Suite 211
600 Henley Street
Knoxville, Tennessee 37996

Knoxville Phone: (865) 974-1882

Memphis Address: University of Tennessee Research Foundation
910 Madison Avenue, Suite 827
Memphis, Tennessee 38163

Memphis Phone: (901) 448-7827

Website: <http://utr.f.tennessee.edu>