DETERMINATION OF PATENT INVENTORSHIP

Generally speaking, an inventor is a person who conceives of an original and non-obvious idea that develops into a useful physical reality (or that is capable of being converted into a physical reality by the action of competent mechanics or technicians). Only a person who contributes to the mental aspects of the invention -- *i.e.*, to the conception of the invention -- is legally qualified as an inventor. Every person who contributes to the conception of an invention *claimed in the patent application* is an inventor. A person who does not contribute to the conception of the *claimed invention* is not an inventor.

Conception is the formation, in the mind of the inventors, of a definite and permanent idea of the complete and operative *claimed invention*. An invention is complete and operative if the inventors are able to provide a description of the invention that has sufficient information to enable a person or group that has ordinary skill in the relevant technologies to implement or use the invention without extensive research or experimentation. We emphasize "claimed invention" because the claims in the patent application provide the legal definition of the invention. For that reason, the claims, and not some abstract notion of the inventive concept, are used when deciding who is an inventor. The claims point out and define the invention from a legal point of view. Because of this, it is important to use claims as guides for any discussion about inventorship and not to discuss inventorship merely in terms of the broad "inventive idea". If the question of inventorship is approached by considering the claims of the application on a phrase-by-phrase or even word-by-word basis, it generally becomes much more obvious who should be considered to be an inventor.

It is important to note that "inventorship" as determined for a patent is different than "authorship" as determined for a paper or publication. For example, in situations in which the invention will be published, questions often arise as to whether people who would normally be listed as authors in a publication should also be listed as inventors. The Courts have specifically held that authorship and inventorship are not equivalent. Inventorship must be considered using the criteria discussed above and must not be confused with authorship.

To be a sole inventor, a person must be responsible for the conception of the invention as described in *all* the claims. For people to be joint inventors there must have been some amount of collaboration or connection in coming to the conception of the invention as defined in at least one of the claims, so that there is some element of joint behavior (e.g., collaborating, working under common direction, one inventor seeing a relevant report and building upon it, or hearing another's suggestion at a meeting). It is not necessary for joint inventors to have worked together face-to-face, for the ideas to have occurred to them at the same time, or for each of them to have made contributions of the same type or of equal importance. There is no minimum quantity or quality of contribution required for joint inventorship. All that is required is that a person have contributed to the conception of at least some of the elements contained in a claim in the patent application. The person need not have contributed to every claim in the patent application, nor have made a contribution equal to the contributions of his or her co-inventors. Note, however, that a person who simply explains the state of the art or describes a set of well-known principles to the inventors, without having a firm and definite idea of the claimed elements as a whole, does not generally qualify as a joint inventor.

One approach that is often used in determining inventorship is to ask the question, "if this idea had not been contributed, would the invention (as claimed) still exist?" If the invention would not exist, then the person who contributed the idea is probably an inventor. The idea does not have to be related to the entire invention or be of equal stature to other inventive ideas, but it must contribute to the development of the claimed invention in some way.

Co-workers in typical situations leading to inventions may generally be divided into three groups with respect to inventorship:

1. The first group contains those people who contribute a basic idea that results in the development of the invention as it is being claimed; such people should be named as inventors. This group includes people who actually reduce an invention to a physical embodiment, but only if they contribute an idea and not just a routine mechanical translation of someone else's idea into a physical object.

2. The second group contains those people who contribute only labor, supervision of routine techniques, or other non-mental contributions; such people are not inventors and should not be included as inventors on the application, although they may be included as authors in the case where the invention or related research is published.

3. The third group includes all other co-workers; these are people who might be considered by some to be inventors but are not legally qualified to be named as inventors on a patent application. These people contribute something in the way of an idea while the invention is being developed, but the idea does not contribute directly to the claimed invention. The idea may be brilliant and may represent a great advance in science, but if it is not directed to the invention as it is being claimed, it is not part of the invention under consideration (although it may be related to a second invention).

Note that if an unintentional mistake in naming inventors is made, inventorship can be changed either during prosecution before the Patent Office or even after a patent has actually been issued. In fact, it sometimes becomes necessary to change the named inventors during prosecution of the application when the claims are amended to avoid prior art newly uncovered by the Patent Office (*e.g.*, when the entire contribution of one inventor is dropped from the claims in order to avoid prior art), or when the claims are subject to a restriction requirement so that the contributions of one inventor are divided out into a separate application. A reasonable and responsible decision on inventorship is all that is required.