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Language in a Patent Application Specification: A Balanced Approach

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A core part of any utility patent application is the specification that provides support for the claims. The language in the specification can broaden the interpretation of the claimed invention or narrow it. In addition, any discussion of prior art in the specification can be held against the applicant and can lead to an Examiner at the United States Patent and Trademark Office rejecting the claimed invention as anticipated by or as an obvious modification of what the applicant admitted is known in the art. Thus, a drafter of a patent application should be clear about the purpose of any such discussion and also be careful in how the discussion is handled. Ironically, referring to an inventive concept as the “invention” can itself be ill-advised or limiting.

Traditionally, problematic terms and phrases used in the specification have been termed “patent profanities.” Such “patent profanities” generally include absolute terms or emphatic terms such as: key, necessary, critical, better, always, essential. Sometimes, these are the types of terms that inventors introduce in disclosure documents and terms that they like to see in the description of their inventions. However,

the drafter has a responsibility to explain the downside of including such terms and phrases in a patent application and to ensure that less problematic language is used instead. Inventors may also discuss defects of prior approaches that are resolved by their invention or dangers addressed by their invention. However, especially when the inventors are employees of an applicant company that may bear liability for the prior defects or dangers, inclusion of any such discussions can be problematic.

Ultimately, an effective patent application represents a balance between saying enough while not saying the wrong thing. The application must, at a minimum, meet the requirements for sufficiency that every application is subject to. Ideally, the application also includes additional descriptions and discussions to facilitate fallback positions, as needed, during prosecution. At the same time, the application should not limit or, in the worst-case scenario, defeat a patent claim by including a problematic discussion or by failing to frame a discussion appropriately.

THE SPECIFICATION HAS TO SAY SOMETHING

There are statutory requirements that a patent specification must satisfy.¹ One of the requirements includes that the specification must contain a written description of the invention and of the manner

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and process of making and using the invention so as to enable any person skilled in the art to make and use the invention and must set forth the best mode contemplated for carrying out the invention.² In practice, each part of this statutory requirement – written description, enablement, best mode – is examined independently for sufficiency. Another statutory requirement is that the specification must conclude with at least one claim pointing out and distinctly claiming subject matter which the inventor regards as the invention.³ This requirement prohibits claims that are deemed indefinite. One way that claims can be indefinite is by including a patent profanity that imposes a subjective, rather than objective, limitation.

The first statutory requirement invokes a person skilled in the art. Thus, to determine the level of detail that is sufficient to meet the written description and enablement requirements, a drafter must consider what constitutes a person skilled in the art of the claimed invention. Assessing that level of skill and knowledge correctly can prevent omission of material that the Examiner or a court may later deem necessary for an adequate written description. The drafter must also be clear on the subject matter the inventor regards as the invention in order to ensure adequate support for that particular concept. Because new matter cannot be added to the specification after filing, a rejection based on lack of written description support in the specification can be fatal to obtaining a patent during prosecution. Lack of written description can also be raised by a third party in a post grant review to challenge the validity of an issued patent within nine months of its issue.

Including all the information needed to satisfy statutory requirements for a specification while excluding limiting or detrimental language is a balancing act. For example, a term in the claims may sometimes need to be limited from its various possible interpretations to convey its correct use. In this case, a drafter may act as their own lexicographer by clearly setting forth a definition of the term in the specification. Without such a definition in the specification, a claim term takes on its plain and ordinary meaning.⁴ However, the drafter must take care not to inadvertently limit the interpretation of the claim term by discussing it in a way that may be regarded as a limiting definition.

The specification is a public document except in limited national security cases. As such, even if

a request is submitted to forego initial publication of a patent application, a resulting patent will be published. Thus, a drafter must also be careful not to include information that is not intended to be public or that is not sufficiently developed to support claims. For example, inventors may provide information during a disclosure meeting that should be kept confidential. Such information can include trade secrets or information related to other products being developed by their company. A drafter should be clear about aspects of a discussion with the inventors that should not be included in a patent specification. Engaging with in-house counsel, as well as the inventors, can ensure that inadvertent public disclosures of confidential information are avoided.

A drafter must keep in mind that anything mentioned but not sufficient to support claims is essentially given up to the public. This issue can come up often, because inventors may be working on ongoing improvements to their invention even after a first application is initiated. If an inventor provides speculative content that is not fully developed – such as preliminary results for improving characteristics of a component by using a different material – including that speculative content in the application could create prior art to a subsequent application directed to that concept after it is fully developed. This again requires striking a balance between providing a broad disclosure that contemplates the invention being performed or manufactured in more than one way, such as with alternative materials, and foreclosing a particular alternate embodiment from being further developed and claimed in a subsequent patent.

In some instances, the inventors may present their idea with a story about an improvement or benefit that they recognized. Drafters may differ in how they regard such information and there are considerations from both a patent prosecution perspective and a litigation perspective that should be weighed in determining whether to include it in a patent application. During prosecution of the application, especially in some countries, providing a technical story may be helpful to overcome an Examiner's view of the claimed invention as being obvious (or lacking novelty) and may even be helpful to address a patent eligibility rejection. However, after a patent is issued and is asserted, a potential infringer might present prior art to undermine the

specific invention story that influenced allowance of the application as a way to attack the validity of the patent. Also, litigators may prefer the flexibility to explain the invention story in different ways rather than being limited to the specific version included in the specification and highlighted during prosecution.

While including every detail about the invention that was provided by the inventors may seem like a safe approach to ensure completeness, taking time to consider the factors that balance requirements and advantages of inclusion with detrimental consequences is an integral step in preparing the patent application.

THE SPECIFICATION SHOULD NOT SAY IT THERE

The specification is subdivided into several sections including a Background and a Detailed Description section, as well as a section with the claims. Considering which of those sections is appropriate for a particular description can be as important as whether the description should be included in the specification at all. Different sections of the specification can work together in harmony when drafted in view of each other. For example, the Detailed Description is not drafted in the same format as the claims section but should be drafted in consideration of both the subject matter and the specific language of the claims. Thus, when a claim term is used to refer to a feature, the reference to the feature and description of the feature should be consistent in the description. This consistency can not only help with readability of the patent application but may also be critical to demonstrating sufficient written description support for the claims. The consistency between the description and claims can also convey that the claims are not indefinite but, instead, satisfy the statutory requirement to point out and distinctly claim the subject matter regarded as the invention.⁵

In addition to making sure there is cohesion among the different application sections, a drafter must also consider the section in which particular descriptions will be most effective and least problematic. For example, discussion in the specification itself may lead an Examiner to reject the claimed invention as being anticipated by or as an obvious modification of what the applicant admitted is known in the art. This issue may be exacerbated by

discussing information related to the claimed invention in the Background section, as an Examiner may consider the applicant's labeling description of the claimed invention as "background" to be an admission that this information was known in the art at the time the application was filed. For example, even when it makes sense to include an invention story on balance, that invention story should not be in the Background section of the application. If the Background section acknowledges a particular problem as background, an Examiner might reject a claimed improvement or solution to that problem as obvious in view of the particular problem being known in the art.

Thus, as a rule, drafters may prefer to keep the Background section brief. However, some technologies may call for a longer background discussion to establish the specific area or component to which the claimed invention is directed. This background discussion may be necessary to clarify the technology area of the invention or to establish terms and definitions common to a new field. For example, a claimed invention to tuning hyperparameters of a neural network may benefit from a fairly lengthy discussion including an explanation of the difference between hyperparameters, which control the training process, and other parameters, which define the number of layers and other values internal to the model. Inclusion of this type of background material in the Detailed Description may blur the line of where discussion of the inventive concept begins.

Generally, the Detailed Description section is the only descriptive section in which any discussion related to the claimed invention should be included. This applies to any invention story, as well. Even in the Detailed Description section, the disclosure should be as clear as possible that the inventors have recognized the problem, when true. In some cases, when the inventors may have resolved a previously unsolved need, establishing a longstanding problem, the state of the art, and the role of the claimed invention in resolving that problem can be helpful during prosecution of the application. But, such a discussion should be confined to the Detailed Description section and also be limited to what the inventors have described rather than generalized. A drafter must also consider whether the benefits described apply to all variations of the claimed invention. To avoid applying the invention story to all versions of the claimed

invention, stating that the benefits are exemplary rather than absolute in the Detailed Description should be considered.

THE SPECIFICATION SHOULD NOT SAY IT THAT WAY

Breadth is central to the tension between obtaining and enforcing a patent. While narrower claim scope can expedite the prosecution stage and facilitate obtaining the patent, broader claim scope can foreclose easy workarounds that help someone avoid infringement of the patent. A drafter must work with the applicant to ensure that the scope of the claims matches any particular purpose the applicant has in mind (e.g., a defensive patent that protects a particular method to be practiced by the applicant, a more offensive patent that seeks to exclude competitors from a particular area). Correspondingly, the drafter must ensure that whatever breadth is selected for the claims, or may be needed for subsequent claims, is not inadvertently limited by the description in the specification. This is especially important when a family of applications share the same specification. Narrower details, clearly indicated as exemplary, can be included with broader descriptions in the specification to support different patents in the family having claims of different scope. Certain terms and phrases can be particularly helpful or harmful in this regard.

Invention

It may seem obvious to refer to the inventive concept as the “invention” throughout the patent application. In reality, it may be best to avoid characterizing the inventive concept as an invention altogether. It is possible that using the term “invention” in relation to a particular feature can cause that particular feature to be read into and, thus, further limit the claims in subsequent claim interpretations, despite what the specific language of the claims may say. This may also present challenges during prosecution because an Examiner may deem this feature necessary to the invention, based on the description in the specification, and require that the claims recite this feature.

In a 2015 case, *Pacing*, the U.S. Court of Appeals for the Federal Circuit discussed several examples of language interpreted to limit claim scope.⁶ The examples include phrases such as: the present

invention includes, the present invention is, and all embodiments of the present invention are.⁷ The examples also include patent profanities such as: successful manufacture and very important feature.⁸

In the *Pacing* case, the Federal Circuit found unmistakable disavowal or disclaimer in a summary section, noting, “[i]mmediately following the enumeration of the different objects of the present invention, the ’843 patent states that ‘[t]hose [listed 19 objects] and other objects and features of the present invention are accomplished, as embodied and fully described herein, by a repetitive motion pacing system that includes . . . a data storage and playback device adapted to producing the sensible tempo.’”⁹ The Federal Circuit then concluded that “the system of claim 25 must be capable of producing a sensible tempo for pacing the user.”¹⁰ Because the ’843 patent’s specification described that the “present invention” accomplishes certain objects and features, the “present invention” claimed in the ’843 patent was ultimately limited to such objects and features, including being adapted to produce a sensible tempo.¹¹ Even if an inventor presents the inventive concept as being for a particular purpose, the application drafter must be careful not to limit the claims to only that purpose or outcome by limiting the discussion in the specification.

Embodiments

When an invention includes different objects and features, how the various features are described can be as important as whether the features are described sufficiently to support varying claims. Different versions of an invention are generally referred to as embodiments. Some embodiments may be added based on inventor input regarding what is preferred or most likely to be commercially implemented, and others may be added as alternatives that competitors might consider, even if they function sub-optimally. While the description of the preferred embodiment may be discussed most prominently by the inventor, the descriptions of alternate embodiments must also be sufficient to support claims that target an infringer. In addition, the drafter must consider the way that embodiments are referenced and described.

In a 2019 Federal Circuit case, the court noted that phrases like “one technique,” “can be carried out,” and “a way” avoid an automatic finding of clear disavowal of claim scope.¹² Even a description of

only a single embodiment in the specification will not restrict the claim scope if the drafter is careful to avoid words or expressions interpreted as exclusions or restrictions.¹³ The court noted that process steps can be treated as part of a product claim if the language in the specification clearly indicates that the process steps are an essential part of the claimed invention.¹⁴ However, the court reversed the district court's construction reading a process limitation into the claims of the '912 patent of Continental Circuits because the specification discussed the process as "one technique" and did not use any language that makes clear that the process is an essential part of the claimed device.¹⁵

In addition to using language to make clear that a described embodiment is one technique (as opposed to the only technique), an exemplary system, or the like, a drafter can also clarify that one or more embodiments can be combined in whole or in part in some cases. Such a statement can then allow for the option of combining features while not requiring such combinations to be explicitly described in full detail.

A common practice is simply to preface a description of each embodiment with a phrase like "in some embodiments." A statement directed to combining embodiments can be included, as well, to clarify that some or all of the description related to each embodiment can be included in the other embodiments.

Different embodiments can describe different contexts to avoid limiting the invention to one context. For example, one embodiment may describe that a system may be deployed in a car, and another embodiment may describe that the system may be deployed in an autonomous underwater vehicle. In some cases, it can be helpful to describe a specific context in more detail. During prosecution of the application, it can be helpful to refer back to language in the specification that details a particular example of a technical field in which the invention is an improvement. Such descriptions and references may be helpful, for example, to overcome a rejection questioning patent eligibility during prosecution.¹⁶

Claims can be directed to a system or method as a whole or to a particular part of a system or method. Claims that are related to a particular part can be valuable to avoid divided infringement issues in which different entities are involved in infringing

action. Claiming only the particular part of the invention that one entity may infringe requires providing support in the specification for that part of the system or method on its own as opposed to only having support for the system or method combined as a whole.

Features

Once the drafter determines which features will be described as relating to different embodiments, an approach for describing the features themselves must be considered. Describing features of embodiments can involve a similar approach as describing the embodiments themselves. That is, the description should ensure that claims directed to the features will not be limited based on any disavowal or disclaimer. Terms and phrases that allow for options can be advantageous and include: "as a non-limiting example," "can . . .," "may . . .," and "not limited to." As an example, describing a system as always including a sensor can potentially result in courts limiting a claimed system to a system including the sensor, even if the sensor is not expressly claimed. A similar result can occur with a sensor always being described as a magnetic sensor. Either description can correspondingly limit claim scope.

The *Cadence* case, a Federal Circuit case decided in 2015, sheds some light on this consideration of using terms that allow for options.¹⁷ In the *Cadence* case, the Federal Circuit agreed with the district court that the term "buffering agent" found in the claim language has a plain and ordinary meaning and saw nothing in the specification that warranted adding further limitation or requirements to that meaning.¹⁸ The court considered a statement in the specification that "the concentration of the buffer 'may be' between 0.1 and 10 mg/ml" and found that it did not limit the scope of the claims to that concentration.¹⁹

As with other considerations regarding language to use in the specification, there may be instances in which, on balance, absolute terms should be used. When describing known processes, fundamental truths, or properties, it may make sense to provide description with definitive terms. For example, it can make sense to state that when the volume of a container *is* increased, the pressure is decreased. In addition, when describing what is actually shown in an image or figure, it can make sense to describe the illustration in

absolute terms such as “Figure 1 shows a dog that is a Labrador.” A subsequent sentence can ensure other options by stating that Figure 1 is a non-limiting example, by making clear that the dog may be any breed, or otherwise broadening the description.

In relation to the specific features themselves, beyond what they can be or what they are, the adjectives and ways of describing the features is of interest. As noted, “patent profanities” can be problematic and should be avoided. Further to this point, beyond absolute terms (e.g., always, necessary, essential) or emphatic terms (e.g., critical, vital, significant), terms that are relative can be used, but the drafter should tread carefully. Relative terms can include “substantially” or “about,” and can introduce ambiguity into a claim even if the term can be found in the specification.²⁰ However, relative terminology is not always indefinite. Providing a description in the specification that can be used by a person of ordinary skill in the art to ascribe a specific meaning to relative terminology can help to overcome an indefiniteness rejection of a claim using such relative terminology.²¹ As an example, a definition in the specification that “substantially,” in the context of the application, means $\pm 20\%$ of a target value, with an inclusion of that target.

CONCLUSION

In summary, patent practitioners should be aware of both the requirements for a sufficient specification and the considerations for an effective one. Despite some general consensus on best practices (e.g., avoiding patent profanities, clarifying the discussion of embodiments and features as

exemplary rather than exclusionary), there is no single set of rules that applies to every specification. Instead, patent practitioners should be cognizant of the benefits and pitfalls of different approaches and use judgment to determine what is appropriate, on balance, given the goals and subject matter of a particular patent application. Understanding what can occur during prosecution of the application, as well as what can occur during post-issuance litigation, can help to achieve synergy between both perspectives.

Notes

1. 35 U.S.C. § 112.
2. 35 U.S.C. § 112(a).
3. 35 U.S.C. § 112(b).
4. MPEP 2111.01(IV).
5. 35 U.S.C. § 112.
6. *Pacing Technologies, LLC v. Garmin International, Inc.*, 778 F.3d 1021 (Fed. Cir. 2015).
7. *Id.* at 1024.
8. *Id.* at 1024–1025.
9. *Id.* at 1025.
10. *Id.* at 1026.
11. *Id.* at 1025.
12. *Cont'l Circuits LLC v. Intel Corp.*, 915 F.3d 788 (Fed. Cir. 2019).
13. *Id.* at 797.
14. *Id.* at 799.
15. *Id.*
16. 35 U.S.C. § 101.
17. *Cadence Pharms. Inc. v. Exela Pharm Sci Inc.*, 780 F.3d 1364 (Fed. Cir. 2015).
18. *Id.* at 1369.
19. *Id.*
20. MPEP 2173.05(b)(I).
21. *Id.*

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