

Patent Drafting for Beginners
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Lecture – 34
Structural and Functional Definitions

Structural and functional definitions; we will look at a set of definitions that can be used which could either be of a structural in nature or which could perform a particular function.

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Name the elements: Structure

- Each element to have a **descriptive name**
- Use words in their **common meaning**
- Special meaning to be defined in specification and claims (if possible)
- Choose carefully: names can affect breadth of claim
- “means for ____” for broad claims (functional)



Now, whenever you name an element, you are naming it as a part of a structure because a device which is a combination of many elements would have different parts in it. So, whenever you name a device, you are attributing a name to a particular device to a particular element in the device.

Now each element that you describe should have a descriptive name. So, there should not be any element in your claim, without a descriptive name and you normally use words in their common meaning, you do not attribute any special meaning unless there is a cause for it. So, the use of the word if there is an ambiguity the dictionary meaning or the common meaning will be attributed to it. So, you always use words for instance if you use a heater, the heater is understood in its normal meaning in cases where you want

to give a special meaning the special meaning has to be defined in the specification and the claims.

Now, one way to do that as you mention in the specification, that there is a special meaning and the special meaning is also attributed to the claims appended or you use similar language to say that the special meaning is not just for the specification, but also for the claims. Now the special meaning once it is defined, then every time you use that word it gets the special meaning. Now there is no need to capitalize a particular word because you have given a special meaning you just use it in the normal form.

Now, you have to be careful in choosing the descriptive name for the element because the descriptive name will decide the breadth of your claim. So, if you are using a tape recorder for instance as a descriptive device as a descriptive name for a recorder alternatively, you could use a means for recording which could be a functional way to define it or a recorder simply which means it could also include a digital recorder. So, how you choose the elements if you give a narrow definition or a broad definition will depend or will decide the breadth of your claims.

Ah if you do not define something using the structure like if you do not use a define a element through a, but as a part of a particular structure, the other alternative is for you to define it as a function. What we call a means for definition, a means for dash, a means for recording, a means for floating or a means for a supporting. So, which means its a means for connecting, but all these functional definitions tell you that this can be a way an alternative way to define a structural element.

So, a structural element rather than calling it a connector, you could call it a means for connecting which would be become functional, and it will become a broader definition in itself it could be any means for connecting.

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Name the elements

- Use appropriate adjectives “outer layer”, “inner layer”
- If elements identical : First , Second
- Distinguish elements by association “Upper floating member”
- Use assigned name consistently “Lower floating member”
- Use thesaurus and dictionary



Now, you have to use appropriate adjectives when you are naming the elements, for instance if your elements comprises of multiple layers, then you would use the correct adjective to state the outer layer and the inner layer. If the elements are identical then you can use the first and the second depending on how you are mentioning them for instance many a times they will be support members.

So, multiple support members; so, you can name them as the first support member, the second support member, the third support member and so on. So, when there are identical elements, you have to qualify them to distinguish them from other members. Now you can also distinguish the elements by association by how they are connected to or how they are associated to, you can say a particular upper floating member or an a lower floating member. Because floating member there could be multiple floating members by association where they are or the left floating member or the right floating member by you can you can distinguish them by association.

. So, once you assign a name to an element, you have to use that name consistently the name that has been assigned has to be used consistently. So, that there is no ambiguity. You cannot refer to something as a layer in one place and then later on call it an outer layer or the left layer. So, the names have to be used consistently to avoid ambiguity and if there is ambiguity, it can be a reason for invalidating your claim. Now the best help is in using dictionary and the thesaurus. The thesaurus gives you alternative terms for any given word. So, you could use that to broaden the language or to capture a much a broader word for an element which you are using.

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Define the elements functionally: “means for”

- “means for” or “step for”
- “device for floating”
- “apparatus for removing seeds” better than “apparatus which removes seeds”
- “means for _____” is a form of claim limitation
- “means for heating” = “a heater”



Now, you can define the elements structurally by giving them it a descriptive name as we had seen. For instance connector would be a descriptive name you could also define them functionally. Now you when you define an element functionally, you define that element through its function rather than describing it as a part of a structure, you describe the function that it does. For instance the common way to define elements functionally is by using the phrase means for dash, now or a step for doing something a means for doing something. Now for instance a device for floating rather than calling it a floating device you can call it a device for floating.

So, you are essentially using a function to define the term or an apparatus for removing seeds. Now an apparatus for removing seeds is much better than apparatus which remove seeds. So, you should try to avoid phrases like which from the function. The means for dash is used as a form of claim limitation. Once you use a element or you define something as a means for doing a particular function it limits the claim for that particular function you could also instead of using a means for definition, you could also use the you could use the structural definition. So, instead of using means for heating you could also say call it a heater?

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Use functional language

- Functional language covers a structure: “recording”
- Recite function immediately after the element
- Use of “whereby”
 - to describe a result that follows from a previously recited structure



Now, use a functional language; now there are alternatives for a means for definition which is what we call a functional language instead of using a means for, you use a function. Some examples providing can be used to describe some operation, creating can be used for describing what has been created in some physical property such that, the functional relationship is achieved such that followed by what is the functional relationship that is achieved, whereby to describe the effect that happens so that to describe the desired end result.

Now, use a functional language when you use functional language, you it covers a structure. When we say a means for recording what is being covered is the function of recording. So, the recording can be by a device that is that is through a magnetic tape, it could be recording by a digital recorder or it could be recording by say a computer. So, when you use a functional language, it covers a structure without describing what that particular structure it. So, it gives you more room to accommodate different types of that function. Now you should recite the function immediately after describing the element. Once the element is named you have to describe the function. So, that there is no doubt with regard to what function which function relates to which element.

Now, use of the word whereby to describe a result that follows from a previously recited structure, now this again follows the earlier part which we explained that you cover a function and which the function should immediately follow the element that you have described.

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Order of elements

- Ordered structurally or functionally
- Functional: ordered in the degree of closeness to the element on which it operates
 “an engine mounted on the chassis”
- Structural: first recite the base (mechanical) or source of power (electrical)



Now, the elements have to be ordered either structurally or functionally. Now functional ordering is it is ordered in the degree of closeness to the element on which it operates. An engine mounted on the chassis now this is called a functional arrangement because it is ordered based on the closeness to the element on which it operates. Now in a structural ordering you first recite the base or the foundation especially in mechanical devices or the source of power in electrical device, and then you construct all the other elements on that. So, the there are two predominant ways in which you can order the elements, you can either order them structurally, which is how it is constructed or functionally based on how it operates.