

How to Read Patent Claims

Parsing claim terms to determine infringement

[Patent Expert](#)

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While a U.S. Patent gives inventors very enviable commercial advantage (i.e. legal monopoly), there is a high burden on inventors to *precisely* specify just what is their invention (in the patent claims). Patent claims must be very carefully prepared – just one poorly chosen word and the 'house of cards' comes crashing down. The patent is worthless. Conversely, very carefully chosen words results in an impenetrable rock-solid fortress.

Once a patent is granted, the limits or 'boundaries' of the invention are set and certain. By reading and properly parsing the patent claims, competitors can completely understand what they can do and what they cannot do. Diligent consideration of a patent's claims will guide one in reaching a *design-around* strategy to avoid infringement. Such attempts to design around should not be considered '*unfair*' or '*unethical*' – indeed it should be considered the height of fairness and is indeed an important part of the patent system. It is simply good competition and a necessary part of healthy capitalism.

Since a patentee has great freedom to chose her words as she likes, the competition may legitimately and fairly practice close to these limits – so long as they are not infringed. It is not precisely the same in Europe – but similar.

Unfortunately, many non-experts do not read patent claims well and consequently arrive at misplaced conclusions regarding infringement and fair non-infringing designs. Typically, the non-expert will review the entire patent specification to reach an understanding of the invention. This is a terrible approach as it often leads one to believe patent coverage is far greater than it truly is. Only the patent **claims** define matter which is protected by patent monopoly. The specification may include many, many things of interest, but it does not set forth the boundaries for the patent's coverage. Do not read your competitor's **patent specification** in an attempt to understand what you must avoid – rather, **read the claims**.

Read a patent claim *word-for-word*. Stop at each word (or short phrase) and ask:

"Does our system have a [word/phrase]?"

If you can answer 'no' to ANY claim element (word/phrase, usually a noun or verb), the claim is not infringed. It's that easy.

Long claims with many words are sometimes very hard to infringe. It is quite easy to find at least one thing which is not part of a competing design. Short claims having few words can sometimes be very strong with few opportunities to avoid infringement.

Let's practice. Consider the following example patent claim:

"1) **An apparatus arranged for supporting human sitting comprising:**

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**a seat;
four legs; and
a backrest,
the four legs are screwed to the seat,
the backrest is glued to the seat."**

To properly parse this claim to determine infringement and discover design around possibilities, we read as follows:

"An apparatus..."

Stop.

First we must ask:

"Is our system an apparatus?"

If you can answer 'no', then your system does not infringe. Simple as that. All things which are not an apparatus will not infringe this claim. This claim only protects things which are an apparatus. If you invented a method of sitting you do not infringe this patent claim.

There is usually a tricky part in many claims at this point right in the beginning. Some claims authors will put a short phrase about what the apparatus is for. In the example: "arranged for supporting human sitting". That is pretty funny; eh? That is how a patent attorney writes '*chair*' – "**apparatus arranged for supporting human sitting**". No wonder patent claims are hard to read! Even funnier still, in nearly all cases, you can just ignore the clause which suggests what the apparatus is for. A \$650/hour attorney writes that a '*chair*' is '*an apparatus arranged for supporting human sitting*' – and the phrase is to be ignored. The structure of the apparatus is critically important, what it is *for* is nearly always uninteresting for the infringement question. Stating what an apparatus is *for* generally has no effect on infringement.

The heart of the claim (list of claim elements) usually follows a word like "*comprising*" or "*including*". This keyword marks the beginning of the list and where to start your critical analysis. After this word you will find a plurality of *claim terms* or *claim elements* and each of these must be considered quite carefully. In the example, the claim elements are: **seat, four legs, and backrest.**

The first word in the list is '*seat*'. Stop. Do not read further. Do not consider the words after seat. We are looking at '*seat*' – and '*seat*' only at this time.

To determine infringement the question to ask is:

"Does our system have a seat?"

Systems which do not include a '*seat*', **do not infringe this claim**. Only systems which have a seat *might* infringe. If your system does not have a seat – do not continue reading the claim; do not continue the analysis. The analysis is over. You are done at this point. You do not need to *design-around* anything because your system is a non-infringing system. Even if your system does have a *backrest* and *four legs* (all of the other claims elements), it doesn't matter. So long as you do not have a *seat*, the claim is not infringed. Quit now.

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If your system does include a *seat*, continue to read the claim word-for-word. The next question to be asked is:

"Does my system have four legs?"

This one is just a bit more tricky. If your system has only *three legs*, then you do not have '*four legs*' as required by the claim. You do not infringe. Quit here. If your system has *five legs*, then your system does have '*four legs*'! This point illustrates a **rule of omission** and a **rule of addition**. When something is omitted (i.e. the fourth leg) you do not infringe! When something is added (fifth leg) your system still infringes. These rules are very important. Please understand them consider them carefully as you read patent claims.

If your system doesn't have *any legs* – you don't infringe. Only systems which can be said to include '*four legs*' (or more, but not less) will infringe this patent claim.

"Does our system have a backrest?"

If your system has a backrest you must continue; if your system does not have a backrest, stop here. Four legged stools do not infringe because they have no backrest. Of course, single legged stools do not infringe because they have neither a *backrest* nor do they have *four legs*. Two of the three claim elements are missing in a one legged stool.

It is not only important to consider the claim elements but additionally one must consider relationships between elements. The relationships may be found after a list of claims elements (see example) or these relationships may be set forth within the list of claims elements - which is a bit harder to read.

The example speaks of two (2) relationships: the relationship between the *seat* and the *four legs*, and the relationship between the *seat* and the *backrest*. We continue by reading and asking:

"Does our system have: four legs screwed to the seat?"

If you can answer 'no', then you are done. Quit here without further consideration. Only systems which have *four legs screwed to the seat* will infringe this claim.

Therefore, one available "design-around" strategy is to devise a chair having four legs **welded** to the seat. Legs which are *welded* to the seat are not '*screwed*' to the seat and those chairs (or, for the patent attorneys: "apparatus arranged for supporting human sitting") do not infringe the claim. The claim only protects chairs with four legs *screwed* to the seat.

A second possible "design-around" strategy includes a chair with two legs screwed to the seat and two legs screwed to the backrest. This configuration does not have "*four legs screwed to the seat*" as required by the claim, therefore, it does not infringe. Thus this is yet another fair design-around which avoids infringement.

Finally, we ask:

"Does our system have a backrest glued to the seat?"

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If your backrest is affixed in any fashion other than *glue* – you do not infringe. Therefore good designs which avoid infringement include *backrests* which are coupled to the seat by *weld, Velcro, magnets, snaps, mechanical interlocks, pressure fitted joints, et cetera* . The claim only covers chairs where the *backrest is glued to the seat*.

If it is impossible to find an alternative means to affix the backrest to the seat then we must try to attach the backrest to something which is not the seat. Another possible design-around strategy would have a backrest affixed (by any means including glue) to the four legs.

With reference back to **'four legs screwed to the seat'** there is an important illustrative point to be made. It was mentioned earlier herein that an inventor has great latitude to choose her words and so she must choose carefully. A chair having *four legs bolted to the seat* might not infringe. Although '*bolted*' and '*screwed*' are very similar, there may be some distinction. If the inventor meant to include '*bolted*', she had the option to said 'coupled by threaded fasteners' which would cover both '*bolted*' and '*screwed*'. By explicitly choosing '*screwed*' the inventor may preclude infringement via *bolted* legs. That is why a skilled claims draftsman might prefer 'threaded fastener' to 'screw' as it includes both bolts and screws. Now when it comes to the *type of screw* (the inventor is silent in this regard), both '*wood type screws*' and '*sheet metal type screws*' would be included under the term '*screw*'. But '*bolt*' might not fit within those limits set by the inventor herself. Interpretations of claim terms when ambiguous, largely goes against the author.

The first step to finding a fair *design-around* is a careful parsing of the claim to be traversed. Where claims terms which are explicitly called out can be avoided, one can avoid infringing the claim. While a patent holder has a fantastic advantage over his competition, that advantage only extends to the depth of the claim terms. Don't make the common mistake of affording your competition the entire scope included in the description portion of the patent, but rather, look closely at the claims to learn the true extent of the patent coverage.