

The Limited Monopoly™

In Search of the Perfect Christmas Tree Stand (Part 2)

by John Hammond, PE and Robert Gunderman, PE

A Recap of the Christmas LM Past

Readers of our column last month¹ will recall that it was the first of two installments on basic patent searching in the USPTO. We presented our invention (The Perfect Christmas Tree Stand), and showed how to identify the best classes and subclasses of patents and published applications to be searched. By searching in the most relevant class/subclass combinations, the odds of finding the most relevant prior art are greatly increased.

This month, again using our invention as an example, we present how to search the classes/subclasses that were identified, a summary of our search results, and some of the factors to be considered in making a business decision as to whether or not to file a patent application based upon the search results.

Before proceeding to the search narrative, let's review our basic claim that we should keep in mind as we search. We might claim, "A tree stand comprising a supporting base including an upwardly facing hemispherical socket, a positioning sphere having a cavity for receiving a trunk of the tree, a collar engageable with the base and comprising a flange, and means for reversibly forcing the collar downwardly toward the base and compressing the flange against the positioning sphere." This is not necessarily the claim we would submit in a patent application, but it captures the overall inventive concept, and serves to focus the search.

So Now We Search

As noted last month, we have identified several classes and subclasses to search. Within Class 47, Plant Husbandry, we will search subclasses 40.5, Tree trunk supporting base with liquid reservoir, and 42, Tree supports. Within class 248, we will search a number of subclasses, including 127 STAND, Receptacle, and 146, Stationary receptacle. Most importantly, we also search the following nested subclasses: 511 SUPPORTS - STAFF TYPE ← 514 Angularly adjustable ← 515 In plural planes ← 516 By joint having spherical element.

We begin with Class 248/Subclass 516 because it clearly appears to be the most relevant. We navigate to the link² for "Patent Classification Codes," and scroll down to Class 248 SUPPORTS, and click "Go." The entire list of subclasses under Class 248 appears. We scroll down to Subclass 516. A red "P" and a blue "A" appear to the left of each subclass number. These are hyperlinks to lists of patents and published applications, respectively, which have been issued or published within the subclasses.

We start our search of Subclass 516 by clicking on the red "P" A page listing the patent numbers and titles of the first 50 of 110 patents issued in this subclass appears³. Each number and title is hyperlinked to an HTML page containing the text of the particular issued patent. (PDFs of the issued patents are better sourced elsewhere, such as via

The old maxim applies to patent searching: "The absence of evidence is not evidence of absence."

Google Patents⁴, or Free Patents Online⁵.) We can see that we are in one of the right subclasses, because there are plenty of patents with the words "tree stand" or "Christmas tree stand" in the title. However, there are also plenty of other patents with inventions directed to other stands, such as "Fishing rod holder," Umbrella tilt mechanism," "Adjustable post support," and "Microphone support."

Tip #1: Don't assume that these non-tree stand patents are not relevant. Just because they are not tree stand inventions doesn't mean that they couldn't have the exact structure of our invention, and thus be a bar to patentability. It's the structure of the device than matters;

the intended use is irrelevant. So the prudent practice is to look at *all* of the issued patents listed, because this particular subclass is very much on point.

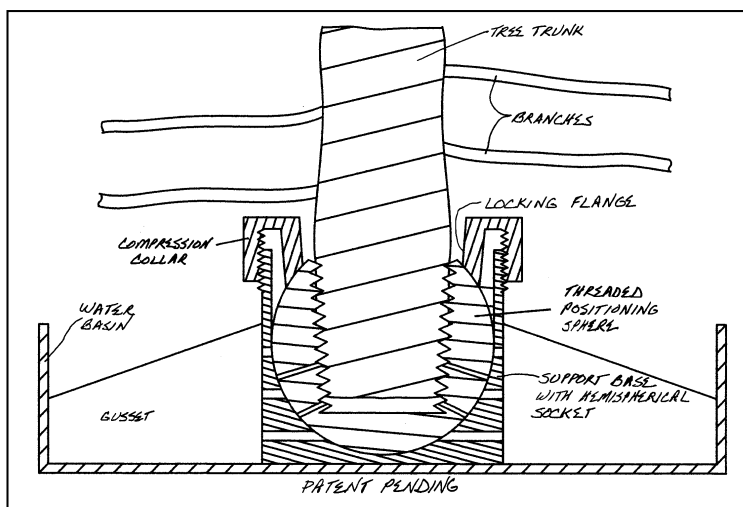
For each patent listed, we click on the hyperlink and open its HTML page. A quick reading of the Abstract can often enable a conclusion that the patent is not relevant. If more detail is needed, a further review of the Detailed Description is in order. If there is still doubt, a review of the actual issued patent is required. We can view TIFF images of the patent by clicking on the "Images" hyperlink, provided that a TIFF image viewing plug-in has been installed in

our browser. Alternatively, we can also have a second browser page with Google Patents or Free Patents Online open, and access complete pdfs as we work through the list, or we can keep a separate list of patent pdfs to be retrieved later.

Tip #2: Keep a continuous record of your search as you work through it, subclass by subclass. Otherwise you will reach a point where you won't be able to remember whether or not you've covered a particular subclass or reviewed a particular patent. As you find patents or published applications that appear to be relevant, set them aside in a file for a more detailed reading later.

As we reach the bottom of the list of the first 50 patents, we see that the last one on the list (U.S. 3,667,708) does not have a title listed; there is only a list of classes and subclasses shown. This is because patents circa 1973 and older do not have full text HTML pages and are also not text searchable in various fields (Title, Abstract, Specification, etc.). So for the remainder of the 110 patents on the list, these must be viewed by clicking on the "Images" link in their (much abbreviated) HTML pages, or by downloading pdfs from one of the above sources.

We proceed through the entire list, viewing the actual pages of



various patents where the written description samples appear close, or where no HTML text is available. Within subclass 516, we find that we need to review about 80 of the actual issued patents. We then navigate back to the Subclass 248 page and repeat the process for published applications by clicking on the blue “A” hyperlink to obtain that list. We then repeat the entire process of searching patents and published applications for each of the subclasses that we have identified.

It is important to note that this is just one example of a search using a set of resources available to the general public without charge. Searches using other resources and other techniques are possible, and may be more comprehensive. Our search example does not cover the searching of any foreign patent databases, nor does it cover searching of non-patent literature. Performing a complete search requires a search of these sources as well. Moreover, no search – whether done by an inventor, a patent practitioner, or an outside search firm – can be guaranteed to find all relevant prior art. The old maxim applies here: “The absence of evidence is not evidence of absence.”

Our Search Results

Our objective was to perform a simple search of U.S. patents and published applications to see if someone had already invented our Christmas tree stand and filed a patent application on it. Based on our initial results, we can then decide whether or not it is worth investing in a patent application on the invention.

So what did we find? The good news is that no patents were identified that “anticipate” our invention, i.e., are the same invention. The closest prior art found is US 4,541,601 of Corbisello; FIG. 2 is provided nearby. Although the Corbisello stand has a ball-and-socket arrangement, it lacks the means for means for reversibly forcing a collar downwardly to lock the ball in a fixed position in the socket.

Business Decision Time

The key question we now face is, “Can we get a patent on at least some version of our Christmas tree stand which might sell well in the marketplace, and therefore have some value?” The answer is... maybe. The Corbisello reference is significant, but not necessarily a bar to patentability. An Examiner might combine the teachings of Corbisello with one or more other references to make an obviousness rejection, but that is difficult to predict. It seems likely that at least some measure of patent protection is possible for some version of our stand. How broad that protection may be, and whether it would protect a highly marketable product is uncertain.

There are also other factors to be considered that pertain to product manufacturing costs, the potential market for the product, and whether or not it offers a sufficiently significant advantage over other competing products to motivate customers to buy it. (These factors were discussed in detail in our previous column⁶ on the business case for patenting.)

As we consider our decision, we are also facing a deadline. We know that the publication of our first column¹ in this two part series will occur around December 1st. That will be a public disclosure of our invention. Although we have one year from the date of the publication to file a patent application in the U.S., there is no such grace period in almost all foreign countries. Therefore the publication of our first column will be a bar to patentability in most foreign countries, and so if we want to preserve the rights to pursue any foreign patents, we must file a patent

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application, to which any foreign or PCT application can claim priority, before our first column is published.

The bottom line: we need to make a business decision on filing a patent application with less than complete information. This is a situation that businesses routinely face.

Our Decision

Under these circumstances, filing a provisional application is an excellent choice. The cost will be lower than that of a non-provisional (utility) application, as the filing fees are lower and the drawings may be submitted informally.

Our provisional application will be pending for one year. We must file a U.S. non-provisional application and/or any foreign or PCT application on or before the end of that one year time period if we decide that we want to pursue a U.S. and/or any foreign patents. So by filing a provisional application, we can buy ourselves a year of additional time at a modest cost while obtaining

patent pending status of our invention. We can use this time to perform tasks including further searching and analysis of any references found, product prototyping, product design, and market studies. These tasks will address the various questions mentioned above, so that we can make a more informed decision on filing any further patent applications.

So that’s our call – The Perfect Christmas Tree Stand is now patent pending and we are on to those next tasks.

1. *The Limited Monopoly*[™], December 2011.
2. <http://www.uspto.gov/web/patents/classification/selectnumwithtitle.htm>
3. <http://www.uspto.gov/web/patents/classification/uspc248/sched248.htm>
4. <http://www.google.com/patents>
5. <http://www.freepatentsonline.com/>
6. *The Limited Monopoly*[™], December 2010.

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