



COMMENTARY

Wanted Pumpkin Patent Application: Third-Party Objections Prior to Award of Patent

Carol Nottenburg^a

28 December 2009

^a C. Nottenburg PhD JD is the principal of Cougar Patent Law, Renton, Washington, U.S.A (www.cougarlaw.com). This commentary was prepared for Harvest Choice. The opinions are those of the author and not necessarily those of HarvestChoice. The author's email address is: c.nottenburg@cougarlaw.com.

(c) Harvest Choice, 2009. For personal use and non-commercial purposes: permission is granted to download and copy and to redistribute information and articles, provided that this is not for profit, no text is changed, and the designated copyright notice and source details remain with this material.

Warted Pumpkin Patent Application: Third-Party Objections Prior to Award of Patent

1. Controversy in a Nutshell

The publication of the U.S. patent application “Warted Pumpkin” sparked an outcry of anger and protest from ETC Group and seed organizations—these groups asserted that warted pumpkins have been known and grown for centuries and thus are not patentable subject matter. Four organizations ultimately submitted the requisite documents and fees to qualify as a “third-party submission.” Since then, the Examiner relied on one of the references to reject the claims; the rejections were countered by the inventor, and the examination process continues.

Watchdogs of “bad patents” are vociferous in complaining about patents and patent applications they believe to be examples of “bio-piracy” or overly broad. One reported example of “bio-piracy” is “Warted Pumpkins,” a patent application submitted by Siegers Seed Company (www.siegers.com), a family run company that specializes in fresh market vegetable varieties. The [ETC Group](#) didn’t mince words in their press release criticizing the U.S. Patent and Trademark Office (USPTO), Siegers Seed and the claims in their patent application—“The claims made by these Michigan ‘wart hogs’ are outrageous,” and “If the USPTO accepts this warty pumpkin patent, it will be another wart on its already blemished record permitting the monopolization of indigenous knowledge (ETC Group 2009).”

Picking up the ETC Group’s press release, bloggers have also unleashed fury on Siegers, such as the author of [The Cats Tripe](#) blog on 13 May 2009, advocating “if you have a chance, grow a warted one [pumpkin] this year, and stop those money grabbers in their evil plans.” Although there is the occasional writer that is informed about patents and sensibly discusses the matter, more often the response is one of disbelief and righteousness, exemplified by comments to an article about warted pumpkins on [Mother Earth News](#). (“The fact that any variety of seed or food plant can be patented is preposterous.... I believe that I have a right to save seed from its offspring and replant it without fear of reprisal from the patent holder.... This hijacking of nature threatens the safety of our food and threatens our freedom and personal liberty.”)

Most seed companies have taken a more restrained approach to the patent application however. Without fanfare, four seed companies jumped through the required hoops to lodge prior art at the USPTO. The seed companies, [Hollar Seeds](#), [Outstanding Seed Company LLC](#), [Harris Moran Seed Company](#), and [Rupp Seeds, Inc.](#) are competitors. Both Outstanding Seed and Harris Moran currently sell seeds for warty pumpkins, and all four are in the business of selling vegetable seeds.

Meanwhile, Siegers Seed has commercialized three varieties of warty pumpkins and gourds – Knuckle Head, Goose Bumps, and Gremlins – and has obtained a trademark, Super Freak™, for their series of pumpkins. According to their web site, these three pumpkins are “unlike anything currently being sold in the decorative Halloween pumpkin/gourd market (ref Siegers Seed home

page).” Siegers boasts that these are the first full-sized and reliably-and heavily-warted pumpkins on the market. Moreover, they claim that it took over 10 generations of breeding to develop the varieties.

In subsequent sections of this commentary, the warted pumpkin and intellectual property, including the on-going examination by the USPTO, are discussed. Finally, options for challenging patent applications are compared and contrasted.

2. History of Intellectual Property

2.1 Overview



Source: Siegers Seed Company, published with permission

Warted pumpkins are pumpkins with knobby or bumpy features reminiscent of warts. In the picture to the left, the warts are varied sizes and scattered. This is the Goose Bumps pumpkin of Sieger Seeds.

The precursor to Goose Bumps was found in a commercial field of multiple unknown pumpkin varieties. The discovered pumpkin had a high frequency of bumpy skin and lower percentage of warting. Subsequent plantings using seed from this fruit resulted in a high degree of variability. Selections were made based upon a large size and significant warting.

After several years of selection, an inbred line program was initiated. Eventually 39 breeding lines and 12 hybrids were sown and resulted in 45 self-pollinated pumpkins that were finally selected. Multiple trials indicated stability of the two varieties—Goose Bumps™, a pie-sized variety, and Knuckle Head™, a mid-sized variety.

In December 2007, a patent application directed to warted pumpkins was filed by Siegers Seed Company in Holland, Michigan. The inventor, Roy Pearman, is Director of Sales and Marketing at Siegers. The patent application was published a year later. Twenty-five claims in the application were directed to a warted pumpkin, pumpkin patch, plant, seed, tissue and a method for producing a new variety of warted pumpkin.

The publication immediately attracted attention from the ETC Group, which sneered at the invention, called the claims “outrageous”, and further criticized the claims as overly broad (ETC Group 2009). Subsequently, the ETC Group, [Seed Savers Exchange](#) and the four other seed companies took action to try to stop the granting of a patent to Siegers Seed. Specifically, the six organizations submitted prior art to the USPTO that they contended destroyed novelty of Sieger’s patent claims. The procedure is called a third-party submission. The Examiner considered four of the submissions (two didn’t qualify, see below), relied on a document provided by one party, and issued an Office Action rejecting all claims. In response, Siegers has

narrowed their claims, and in due course, the PTO will issue another Office Action. Because patent examination is still on-going, there isn't any resolution of the issues raised by ETC Group or the other third-party submitters. More details of the patent examination are presented in the next sections.

2.2 Patent Claim History and Analysis

This section presents the history of the patent application and a discussion of patentability. The application was filed in December 2007; it contained 25 claims and 19 drawings, most of them color photographs of warted pumpkins. The text of the document describes the invention, which is a pumpkin having an inner surface and outer shell that has one or more warts. The warts may be "nested", that is a wart on top of another wart. The warts can be as small as 0.5 cm x 1 cm x 0.5 cm to as large as 10 cm x 10 cm x 5 cm. Furthermore, the warts comprise at least 5 percent of the surface area and as much as 50 percent. The warts can be pretty much any color. The pumpkin may be a *Cucurbita pepo* or a *Cucurbita maxima*. The orange pumpkins associated with Halloween are typically one of these two species, with *C. maxima* being very large (over 75 pounds or 35 kilograms).

The claims as originally filed

- Claim 1 as filed was for

A warted pumpkin, comprising:

- a body having an inner surface and an outer shell, wherein the outer shell comprises a surface area; and
- at least one wart associated with the outer shell of the body.

Some of the subsequent claims (dependent claims) recite warts comprising varying percentages (from at least 5 percent to at least 50 percent) of the outer shell surface area; and dimensions of the warts (height and width are anywhere from greater than the depth to five times the depth). In addition there are claims to warted pumpkin patches comprising the pumpkins of claim 1, and plants, seeds, and tissues that grow into a warted pumpkin. Finally, claim 25 recites a method for producing a new variety of plant by pollinating a variety of warted pumpkins with another variety of Cucurbitaceae plant and germinating the seeds from that cross.

What does this claim likely mean? And, was ETC Group's claim interpretation correct?

The claims require that the warted pumpkin have at least one wart on its outer surface. The first scope issue is to determine the meaning of "pumpkin." The patent document does not contain an explicit definition of the term. Therefore, we look to see how the term is used in the document to infer a definition; if there isn't a consistent and apparent meaning in the text, then we consult a dictionary.

Throughout the background, pumpkins are referred to in conjunction with decorations for Halloween and Thanksgiving, especially with regard to carving them for Halloween. As is well known, this type of pumpkin is an orange-fleshed fruit. Moreover, the two hybrids mentioned in the Example section—Goose Bumps and Knuckle Head—are both orange. Confirmation that

the inventor intended only orange, Halloween-type pumpkins might be obtained if the color photographs submitted with the application were available for inspection. The color figures are “warted pumpkins prepared in accordance with the present invention (US 2008/0301830 A1).” Taken together, it is most likely that the pumpkins are orange, Halloween-type fruits, which are used mainly for decorations.

ETC Group (2009) contended that the patent application claims encompass gourds and squashes, as well as pumpkins. They arrived at this interpretation from the statement in the application that the “... invention may also comprise a *Curcubita pepo* and/or *maxima*.” It is true that some squash are members of *C. pepo*, but pumpkins may also be of other species, e.g., *C. moschata* (Halloween Pumpkins 2009). It simply doesn’t follow that the claims encompass all species of *Curcubita* merely because the inventors mention two of the species that contain pumpkins. Based on the disclosure, the broadest *reasonable* interpretation is that “pumpkin” is limited to the orange fruits of the type commonly seen at Halloween time. Therefore, ETC Group’s assertion is exaggerated.

The term “wart” is likewise not explicitly defined. Preferred sizes of warts are disclosed however. Pictures of exemplary warts are also disclosed. Some are lumpy and bumpy, but others are smooth looking. In the background, the inventor does discuss blemished pumpkins, which are very small and smooth, in order to draw a distinction to the warted pumpkins. From the disclosure it isn’t clear what the requirements of a wart are for size and appearance. ETC Group doesn’t make much of this issue however, except to note that evidence of warty pumpkins can be traced back to the 16th Century. In their news release, ETC publishes a botanical illustration of a warty-looking *C. pepo*.

The Examiner considered third-party submissions and used one of the submitted documents to reject some of the claims for lack of novelty

Until a patent application is published, documents at the PTO are held in confidence. After publication, a third-party has an opportunity to provide the patent office with a list of up to 10 documents for consideration by the Examiner. The list must be provided without comments.

Four of the objectors timely filed a list of publications, copies of the documents (in English) and paid the requisite fee. The Examiner considered these submissions. The two other objectors (ETC Group and Seed Savers Exchange) didn’t comply with the rules, and as a result, their submissions were disregarded. ETC Group didn’t pay the requisite fee, and Seed Savers’ submitted after the deadline, without fee, and its submitted publication wasn’t even published prior to the patent application, which means that it couldn’t have been cited against the claims. Consequently, neither of these submissions were considered by the Examiner.

The four successful objectors all used the same patent attorney to lodge the submission. The gang of four were Hollar Seeds, Outstanding Seed Company LLC, Harris Moran Seed Company, and Rupp Seeds, Inc. The majority of the publications submitted were seed catalogs and books on squashes and gourds. Some of the same publications were submitted by multiple third-parties. A possible reason for duplicate publications was to emphasize the importance of the publication in the eyes of the objectors.

Of the publications submitted by the gang of four, the Examiner deemed eleven publications most relevant and used one of them to reject claims. The publication used was Seed Savers Catalog 2004. It was one of five publications cited by the Examiner as anticipating the claims.

To anticipate a claim—meaning that the subject matter of the claim was disclosed prior to the invention—each and every element in the claim must be found in a single reference. Publications or other evidence cannot be combined. In the simplest situation, to anticipate claim 1, a reference has to show a pumpkin with an inner surface and outer shell (don't all pumpkins have this?) with at least one wart on the outer shell. For other claims, the reference has to also show for example, that the warts cover at least 50 percent of the surface area (claim 5), that the height and width is at least 2x the depth of the warts (claim 8), and so on.

The Examiner made a series of rejections for anticipation based on five different references. The various disclosures were said to show

- a green-gray pumpkin of unspecified species that has cream colored warts (Nakagawara 2000);
- (ii) a variety called Galeux d'Eysines that has warts over at least 50 percent of its surface area (Seed Savers 2004);
- (iii) a *C. pepo* variety called Turner Family Pumpkin, which has warts over at least 50 percent of its surface area and moreover some of the warts are nested (Revolution Seeds 2004);
- (iv) numerous pumpkin varieties that have warts due to edema (Stanghellini et al. 2003); and
- (v) *C. pepo* pumpkins with warts, which can cover the entire surface area, and crossing the warted pumpkin with another Curcubitae plant (Schaffer et al. 1986).

Claims were also rejected for other deficiencies

The claims used a number of terms that the Examiner found vague and indefinite in meaning. Normally such rejections are readily cured by minor amendments of language or pointing out a definition of the term in the text of the application. In this case however, among a list of indefinite terms, major terms in the claims – “pumpkin” and “wart” or “warted” – were deemed indefinite. The Examiner contends that “pumpkin” does not have an art-defined meaning and moreover, that the patent application doesn't define these terms. As discussed above, these terms are used in the application, but never defined.

Response to rejections

Facing a number of rejections based on prior art, the applicant responded by narrowing his claims to try to avoid the art. Specifically, to overcome

- (i) and (ii) claim 1 is now drawn to a *C. pepo* fruit rather than a pumpkin;
- (iii) claim 1 now recites that the warts comprise at least 25 percent of the surface area;

- (iv) and (v) claim 1 now requires that at least one wart has either a height or width that is greater than the depth (the distance from the surface to the top of the wart).

Amended Claim 1 was for

A warted *Cucurbita pepo* fruit, comprising:

- a body having an inner surface and an outer shell, wherein the outer shell comprises a surface area and is predominantly orange in color; and
- a plurality of warts associated with the outer shell of the body of the *Cucurbita pepo* fruit,
 - wherein the plurality of warts comprise at least 25 percent of the surface area of the outer shell of the body of the *Cucurbita pepo* fruit, and
 - wherein at least one of the plurality of warts comprises a height, a width, and a depth, and further wherein at least one of the height and the width is greater in dimension than the depth.

To overcome the rejections for vagueness and indefiniteness, the applicant has limited options. Generally, the rejection can be argued against, or the claim can be amended. An amendment has to have basis in the application; another term isn't typically acceptable unless it has been used in the application and has a definite meaning.

The applicant chose both options, depending on the term. For "pumpkin", he substituted the term with *Cucurbita pepo*, and moreover, added a requirement that the fruit outer shell be predominantly orange in color, further limiting the types of claimed pumpkins in this genus. For the term "wart / warted" however, the applicant contended that his usage is in conformity with accepted usage and, in support, submitted an entry from a dictionary, which has three definitions. The most relevant is "an excrescence or protuberance resembling a true wart; *especially*: a glandular excrescence or hardened protuberance on a plant (Merriam-Webster Online 2009)."

3. What's Next?

The ball is in the PTO's court. Likely another Office Action will be sent to the applicant within four months time (early 2010). The third-party submitters and ETC Group have no more right of submission. Their next opportunity in the process is if and when a patent issues, they may request a re-examination. A re-exam request can only rely however on prior art not considered by the patent office. As only one document provided by the third-party submitters was used by the PTO, all the other documents can be used to support a re-exam request.

So far, ETC Group has not commented on the latest development in prosecution of "Warted Pumpkins". Although the claims are more limited, and apparently no longer encompassing gourds and squashes, it remains to be seen whether ETC Group will be satisfied. It is unlikely

that the four successful submitters will find the newly amended claims to their liking either. The current claim would likely still cover competing products already in catalogs of some of them. A reasonable guess is that these groups would only be quieted in the case of claims directed to the two disclosed hybrids—Knuckle Head and Goose Bumps. So far, however, Seigers has not submitted claims to these specific commercialized pumpkins.

References

ETC Group. 2009. Message to USPTO: Squash the Patent on Bumpy Pumpkins; there's plenty of prior (w)art, 2 February.

Halloween Pumpkins 2009. <http://www.halloweenpumpkins.be/en/pumpkins.html>.

Merriam-Webster Online 2009. <http://www.merriam-webster.com/dictionary/wart>.

Nakagawara 2000. *J. Crop Protect* 3:113-118.

Revolution Seeds 2004, www.revolutionseeds.net/cucurbit/pepo02.htm#turner.

Schaffer et al. 1986. *Z. Pflanzenzuchtg* 96:147-153.

Seed Savers 2004. 2004 Catalog, Seed Savers Exchange, Decorah, IA, p. 35.

Stanghellini et al. 2003. *Hort Technol.* 13:532-539.