The Power of Portfolio: Strong Design Patents III

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*Editor's note: This is the third in a four part series on **Strong Design Patents**.*

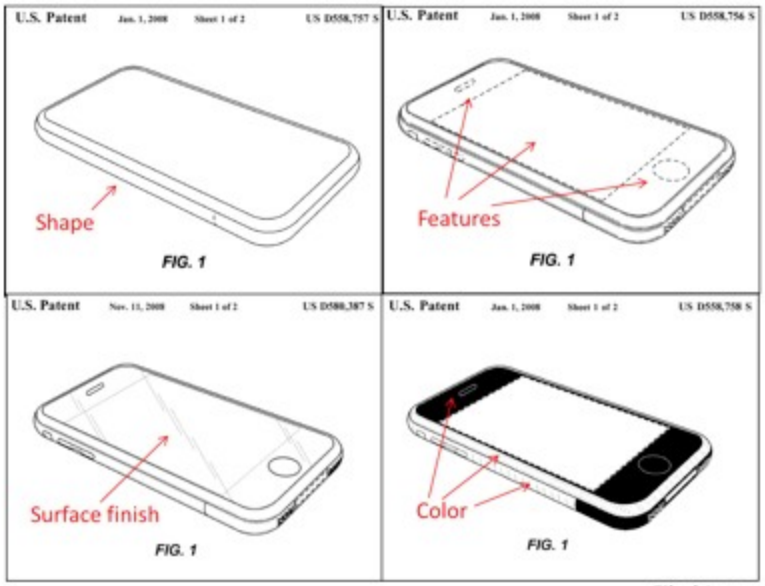
MacWorld Conference & Expo 2007, San

Francisco. Steve Jobs presents Apple's phone.

In this series, we are looking at Apple's design patents and their strategies for using them to protect the iPhone from being copied. In the first two articles, we looked at **The Power of The Broken Line**, and **The Power of Color**. In this article we are looking at the ***The Power of Portfolio***. In the patent industry, a "portfolio" is a grouping of patents that each protect different aspects of the same invention. Patents are like shingles on a roof, there needs to be some overlap between them to provide complete protection.

On January 9, 2007, Steve Jobs introduced the iPhone to the world. It was an historic event. He was immensely proud of what Apple had accomplished and he made it clear he was going to defend it. Steve was passionate about both style and technology, so when he said "Boy have we patented it" he meant both design and utility patents. We are focusing on design.

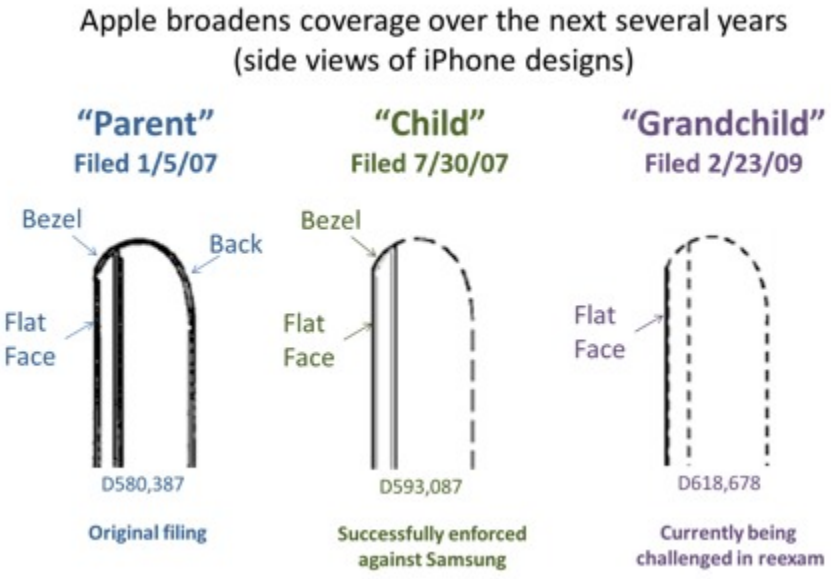
Apple files a suite of iPhone design patents four days before Steve Jobs January '07 announcement



Filed January 5, 2007

Four days before Steve Jobs introduced the iPhone, Apple[i] filed a suite of four design patents, each covering a defining aspect of the design. This was the beginning of their portfolio. D558,757 covered the basic shape (flat box with rounded edges); D558,756 covered the features (screen, connectors, buttons…); D580,387 covered the surface finish (glass-like); and D558,758 covered the color (black, silver…) The timing of these filings was critical. They had to be filed before the phone was shown to the pubic but not so early that the design would change. What was unusual about Apple's filings was that while most companies would file design patents one to two months prior to an initial public showing,

Apple's decision to file a mere four days before the product was introduced, showed that they were willing to take risks on missing their deadline in order to make sure their design patents matched as closely as possible what they were going to show.



Another notable point is that Apple didn't stop building their portfolio with the initial suite of filings – called "parent" applications. Within months they began to refile their cases ("child" applications) with more generic images seeking broader coverage. This further strengthened their total portfolio.

As we discussed in **The Power of the Broken Line**, Apple's refiled cases broadened the coverage of their original filings by converting solid lines in the images to broken lines. The broken line elements then became optional, and a competitor would only have to match the solid lines to have infringement. The parent patent in the figure above, D580,387, has a flat face, rounded bezel and rounded back, all shown as solid lines. To infringe that patent, a competitive phone must match all of the solid lines. However the child patent, D593,087, is broader in that only the flat face and rounded bezel are shown as solid lines. The rounded back is a dotted line and a competitor would not need to match it for infringement. The grandchild patent, D618,678, is even broader since both the back and bezel are dotted lines. Only the front face would need to match a competitive device for there to be infringement[ii].

Another fascinating element of this case is that the patent examiner was initially reluctant to allow Apple to broaden its child applications with broken lines in the child application since the original parent filings only showed these features as solid lines. Apple refiled the case again and the examiner relented and allowed the new dotted lines. It's not exactly clear why. This situation demonstrates that Apple may be smart and

aggressive, but they are not perfect. It would have been better if their original filing had all of the different combinations of solid and broken lines that they wanted to protect.

Broadening coverage by refiling cases has been a very effective strategy for Apple. The child patent, D593,087, was one of the patents they successfully enforced against Samsung at trial. The grandchild patent, D618,678, is currently being asserted against Samsung at the US International Trade Commission. To add to the complexity of this case, an unknown third party has filed a request for reexamination at the USPTO for D618,678 [iii]asserting that this design would have been obvious in light of several similar Japanese phone designs that had not been considered before. If the patent survives the reexamination challenge, then the reexamination could actually strengthen Apple's portfolio since this patent will have been more severely tested. On the other hand if this patent has difficulty getting allowed again, then the portfolio will be weakened in the eyes of the public while Apple pursues its appeals. An ultimate final determination of invalidity could take years given the numerous levels of appeal Apple has available.

As impressive as Apple's portfolio is for the shape of the iPhone, it pales in comparison to their extensive and growing portfolio design patents for the iPhone graphical user interfaces and icons. The iPhone was first sold to the public in June of 2007, five months after Steve Jobs's announcement. Six days before the sales began, however, Apple filed a massive color design patent with 193 screen shots of various iPhone graphical user interfaces and icons. These are shown in the figure above. All of these images received the June 23 filing date, but only one[iv] could be used for the patent that would issue from this original

filing. This requirement to select a single image or closely related family of images from an initial filing of multiple images is called a “restriction requirement”. The advantage of filing multiple images in one patent application is that you only pay one filing fee and you can string out the patents on the rest of the images for several years. Apple picked the home-screen image circled in the figure above for this first design patent, D604,305. The rest of the images are being refiled as additional child, grandchild, great-grandchild, etc. patents. Each patent will be valid for 14 years from the date it issues but get the original June 23, 2007 filing date. About 50 patents have issued so far, and about 10 are currently pending. Patents on the rest of the images may or may not be filed in the future. Apple can keep refiling new cases as long as at least one of the earlier child cases is still pending and as long as they don’t introduce “undue delay” in the process. With each generation taking 1 to 2 years in the patent office, this process could literally continue for another 100 years. [v] Meanwhile Apple has asserted the initial D604,305 patent against Samsung and received a $725 million jury verdict for patent infringement.

Because they can afford to spend tens or hundreds of millions of dollars on worldwide policing of their patents, Apple is pushing the edge of the envelope in terms of creating an extensive design patent portfolio by aggressively claiming every aspect of their designs, and litigiously enforcing their patent rights. However, the small to medium sized enterprise (SME) needs to be more careful about how to spend money. In our next article “The Power of Policing” we will turn our attention to the SMEs. We will present the case of **Olloclip**, makers of a 3-in-1 iPhone photo lens that was launched on the crowdfunding site Kickstarter two years ago. Olloclip’s sales grew fast, but counterfeits showed up within a month of their launch, and they have had to scramble ever since to enforce their rights. Olloclip’s story is illuminating for any SME bringing a design based product to market.

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[i] **Sterne, Kessler, Goldstein & Fox P.L.L.C.** is handling Apple’s iPhone design patents.

[ii] The actual family relationships between these patents is more complicated than presented. Feel free to contact me at **mark.nowotarski@gmail.com** if want the detailed family tree.

[iii] Hat tip to **FOSS PATENTS**, for breaking the story on the reexamination.

[iv] You can patent multiple images of a GUI in a single patent if they are obvious variations of essentially

the same image.

[v] The legal term for undue delay is “laches”. Keeping an application pending for 30 years at the USPTO has been considered an undue delay.

About the Author

Mark Nowotarski is the President of Markets, Patents & Alliances L.L.C. and is a registered U.S. patent agent. He currently serves clients in the consumer products, medical devices, financial services and manufacturing industries. Mark also consults in the field of crowdfunding of inventions on Kickstarter, Indiegogo and other sites.

Mark is a former Associate Director of R&D for Praxair. There he was responsible for the development and successful worldwide introduction of new products into the health care, electronics, and manufacturing industries. He was also responsible for technology planning for their home health care division.

Mark is an inventor on 17 US patents. He was appointed Corporate Research Fellow for the commercial impact of his inventions (+$300 million in sales).

Mark has a Master's degree in Mechanical Engineering from Stanford and a Bachelor's degree with honors in Aerospace, Mechanical Sciences and Engineering Physics from Princeton. His academic awards include the Sigma Xi award for most outstanding Mechanical Engineering research at Princeton and the Union Carbide Award for Academic Excellence and Leadership in Mechanical Engineering, also at Princeton.

4 comments

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1. Paul F. Morgan **August 26th, 2013 3:34 pm**

   How does the validity of divisonal's changing disclosed and claimed solid lines to dashed lines to broadly claim only a part of the original design compare with In re Owens decided by the Fed. Cir. on 3/16/13?

2. **Mark Nowotarski August 26th, 2013 5:15 pm**

   Paul,

   Great question. Could you elaborate on In re Owens and perhaps provide a link? I would be interested in hearing what others have to say.

3. **Jim Lipsey September 19th, 2013 11:51 am**

   Mark, I've drawn well over 1,000 design cases as a patent illustrator (over 30 years experience). Only one design case I've drawn where the attorney tried to cover "color" as part of the design and failed. I see that D558,758 covered color (Black and White). Have they successfully covered the color? Have you had success in covering color in a design case? And, color other than black and white using the cross hatch for color?

   I still continue to draw design cases on a part time basis as I sold my illustration firm 4 years ago and I try to encourage some of my clients to expand their knowledge in design cases based on my experience. One recent question came up about color protection and I told them that I have never seen any success.

   Thanks in advance.

4. **Mark Nowotarski September 19th, 2013 3:53 pm**

   Jim,

   Thank you for you comment.

   I'm not sure what you mean by "cover color". If you file a color image with a design patent, then the color image becomes the claim. The colors in the image are what is covered.

   Does this help?

   Feel free to drop me a note at **mark.nowotarski@gmail.com** if you want to discuss further.

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