

Patent Law
Spring 2011 – Michael Risch
Final Exam

This is a take-home exam. You have eight (8) hours from the time you download the exam to complete and upload the answer. If you experience technical difficulties, please follow registrar office directions or contact the registrar. I recommend that you do not download the exam at a time when the due time will be outside of business hours of the law school.

You may use any written materials you desire for the exam, but you may not receive help from any person. Note that the exam will be held during the first week, but there may be make-up exam days. You must be careful not to disclose any details of the exam to your classmates, or discuss any aspect of the exam (or your answer!) until after I post a Blackboard announcement notifying you that you may do so. Page two of this exam is a confirmation that you understand this – please print, sign, and turn in to Mira Baric at some point before May 14.

Make sure that your exam number appears on each page, which is most easily done with a header or footer.

This exam includes a strict word limit of 4200 words, which is approximately 13-15 pages of a proportionally-spaced font, or many fewer pages with smaller margins. I am grading each exam all at once, so feel free to refer to a prior answer if relevant. NOTE: You do not have to use all of the words available – the questions can be answered in less space than allotted.

Do not rely on page limits; you should count words using your word processor's "properties" menu item (word counts are sometimes in the bottom bar of the word processor as well). You may divide the word limit among the different questions however you wish, **but I will stop reading after the word limit is reached.**

Your exam must be typed, with double spacing on 8.5 x 11 paper size and reasonable font and margin size. Please begin the answer to each question at the top of a new page.

Patent Law Final Exam, Spring 2011.

I _____, confirm that I have obeyed and will obey the Villanova University School of Law Code of Conduct with respect to the above exam, and that I have not discussed and will not discuss any part of the exam, its contents, or my answer with any of my classmates until after I am notified that I may do so.

Dated: _____ Signed: _____

___ Initial here if Prof. Risch may publicly post some or all of your answer (without your name associated with it)

Please return to Mira Baric in Room 260 by 5PM on May 14, 2011. I cannot give you a grade without it.

Patent Law Final Exam
Spring 2011

The questions are weighted as follows: Question 1, 60 points, Question 2, 30 points, and Question 3, 7 points for a total of 97. The other 3 points are for participation. If any of your answers depend on facts not stated in the problem, feel free to identify which facts would be helpful, and how they would affect resolution of the issue. You may refer to answers to prior questions. Remember your word limit. **I WILL STOP READING WHEN I REACH THE LIMIT.**

ALL PEOPLE, WEBSITES, AND EVENTS ARE FICTIONAL, EXCEPT THOSE THAT ARE REAL, BUT EVEN THEN DO NOT LOOK OUTSIDE THE FACT PATTERN GIVEN. DO NOT RELY ON ANY CASES, STATUTES, CLAIMS OR OTHER ARGUMENTS THAT ARE NOT BASED ON ASSIGNED READINGS OR CLASS DISCUSSION – YOU DO NOT NEED TO DO RESEARCH TO COMPLETE THIS EXAM.

DO NOT ASSUME THERE IS ANY PRIOR ART OTHER THAN THAT DISCLOSED (IF ANY) IN THIS EXAM.

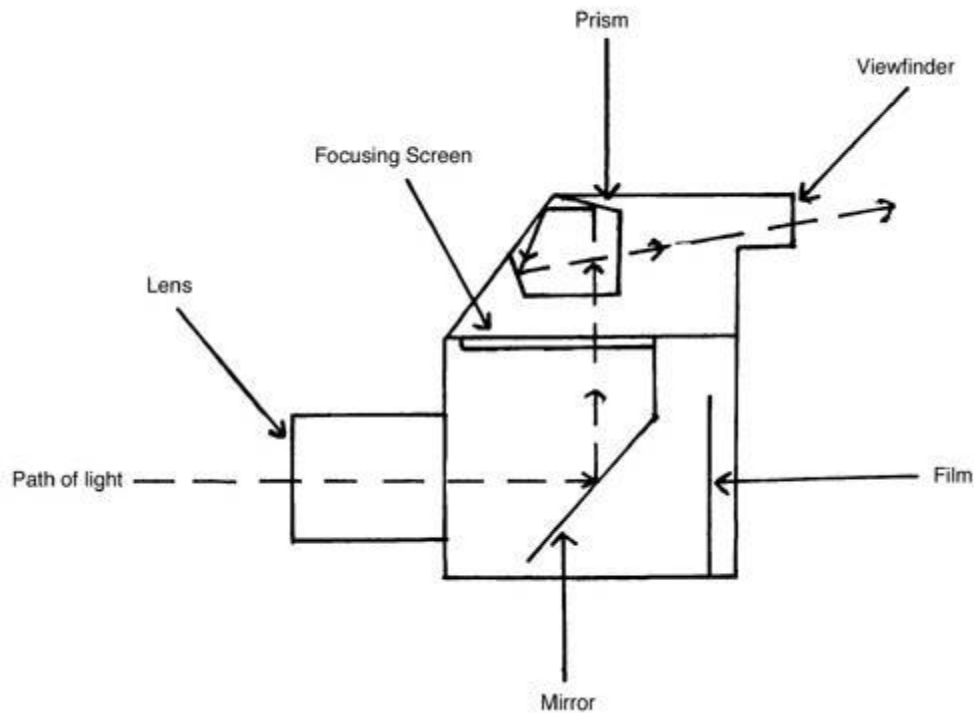
Pat Holder

Patent “Pat” Holder was an avid photographer. Pat particularly liked self-portraits. Pat usually set the timer on film-based cameras and then ran in front of the camera for the snapshot. Sometimes Pat pointed the camera the wrong way (toward herself) and held the camera at arm’s length to snap a portrait.

The problem, though, was that Pat never knew whether the shot was aligned properly. It wasn’t until the film was developed that Pat would see her head off to the side, or worse, not even in the photo.

Viewfinders

In traditional film-based cameras, the viewfinder works by reflecting light off of a mirror behind the camera lens. When the operator presses the right button, the mirror lifts, and the light instead is captured by film behind the mirror. Digital SLR (“single lens reflex”) cameras work the same way. An image is below:



The Reverse Viewfinder

On January 1, 1995, Pat had the idea for a reverse viewfinder on her film based camera. Pat experimented with mirrors and lenses over the few months, and on June 1, 1995, completed the “reverse viewfinder.” The viewfinder sits on top of the camera (and next to the standard, rear-facing viewfinder) and allows the user to see what the lens sees by reflecting the light coming out of the old viewfinder and magnifying the image using curved lenses in the new front-facing “reverse” viewfinder. Pat thinks it’s a really great use of mirrors and glass to bounce the light from the back to the front of the camera.

One drawback of the viewfinder is that, when attached, it blocks the connector for the flash, so the camera cannot be used in dark places. A photograph of a reverse viewfinder camera is reproduced below.

Pat took her modified camera on a world tour during June of 1995. She photographed herself in front of landmarks in Los Angeles, Denver, Philadelphia, and New York. Hundreds of people in each city saw her use the camera at these famous sites. A couple people even asked her if the reverse viewfinder was available for purchase. Pat said she would be happy to make one for them upon her return home in July, and got contact information from the people who asked.



Of course, the quality of the image in the reverse viewfinder is not very good because the window is small and the photographer holds the camera at a distance. Pat did not see this as a drawback, because the goal was to line up user's head in the center of the lens for the photograph, and a small head in the reverse viewfinder would achieve that goal.

On July 1, 1996, Pat files for a patent. The *initial application* looked like this:

I have invented a new type of camera that provides a substantial benefit by allowing the photographer to point the camera toward herself and align the image before taking a photo. This is quite useful, because it allows the photographer to avoid wasting film by only discovering misaligned self-portraits after film is developed.

I built this invention by modifying a Leica 35mm film camera. Presumably any camera would work, including a new-fangled digital camera. I attach a "reverse viewfinder"

onto the Leica camera. The viewfinder is comprised of a series of mirrors and lenses that reflect and magnify the image viewed by the camera's main photography lens so that a camera operator in front of the lens can see the alignment of the objects in the lens's view before snapping a picture. One skilled in the art of camera-making can determine the proper combination of lenses and mirrors to obtain a working reverse viewfinder. However, the invention will not work unless the image is first reflected off of the mirror behind the camera's primary lens, because that is the only way to capture the light coming through the camera lens.

I claim:

1. An improved camera including a reverse viewfinder, comprising:

a lens sufficient to capture light in a photographic process; and

means for displaying the image viewed by said lens to the operator who is positioned in front of the lens.

Pat did not know if someone skilled in the art could determine the right combination of lenses and mirrors, but she assumed that she should write that based on other patents she looked at as examples.

On January 1, 1997, the patent examiner rejected claim 1 as indefinite, arguing that any clear object could be a "lens." Pat thought this was absurd, because lens is a term of art in photography. In any event, Pat filed an amendment on February 1, 1997, adding "camera" to "lens" and thought of a new claim as well. While the specification remained the same, the *final* claims read as follows.

I claim:

1. An improved camera including a reverse viewfinder, comprising:

A camera lens sufficient to capture light in a photographic process; and

means for displaying the image viewed by said lens to the operator who is positioned in front of the lens.

2. The camera of claim 1, where such means for displaying the image provides a view of an image displayed on an LCD viewfinder of a digital camera.

The '123 patent issued on January 1, 1998. Pat never attempted to sell the reverse viewfinder, though she did continue to use it.

LCD Viewfinders

Digital cameras capture light using light-sensitive computer chips behind the camera lens. The computer chips can be used to translate information about the light onto an LCD screen located on the back of a camera. These are called LCD viewfinders. People using LCD viewfinders align their pictures before snapping the digital photograph.

The use of a light sensitive chip results in two improvements over traditional film viewfinders. First, no mirrors are necessary in order to display the image on an LCD viewfinder prior to taking a photo (traditional cameras use a mirror to reflect light from the lens into the viewfinder window). Second, the user can see the photographed image nearly instantly rather than waiting for film to develop.

Apple iPhone

In 2009, Apple began selling a new version of its popular iPhone cellular telephone. While cellular telephones had long included the ability to capture digital images, this one was the first cell phone that had a lens on the front. The new front camera operates as follows: 1) a single curved piece of plastic is used to focus light onto a light-sensitive computer chip (rather than film); and 2) that computer chip translates information about the light into digital pixel information that is displayed on the iPhone screen.

As a matter of practice, an iPhone user could now look at the LCD screen on the front of the phone, see him or herself on that screen to align the image as desired, and snap a picture. The user could then view the photo to determine if the photo was recorded as desired.

The Lawsuit

Pat Holder sued Apple for patent infringement on January 1, 2011, seeking damages and an injunction.

The Prior Art

During the lawsuit, Apple discovers all of the facts stated above. It also finds the following prior art:

1. There is an abundance of prior art about mirrors, lenses, and viewfinders, although the exact combination had never been put together before.
2. On February 1, 1994, Photography Today magazine published an article about how digital cameras allowed for “the new self portrait.” It described how people were taking photos of themselves using mirrors. Specifically, people stood in front of the mirror, aimed the camera at the mirror, and aligned the lens with the image in the mirror.
3. On February 1, 1995, Modern Photographer magazine published another story. Apparently, photographing oneself in a mirror caused problems because the flash in the mirror blocked out photos when the camera faced the mirror. It described how people were now photographing themselves by aiming the camera at themselves, looking at the digital camera’s LCD viewfinder in the mirror to align themselves with the lens, and then snapping the photo.
4. On December 1, 1996, Another Inventor filed an application on a digital camera with a mirror attached to the back, which allows for viewing the LCD viewfinder from angles other than directly behind the camera. A picture of the invention in the patent is reproduced below. Another Inventor’s application was published on June 1, 1998, and the ‘789 patent issued on January 1, 2000.



QUESTIONS:

Q1: You are counsel for Pat Holder. Please draft a memo describing the challenges to the validity and enforceability of the '123 Patent that Holder should expect to see, and the responses Holder has to such challenges. (60 points)

Q2: You are counsel for Apple. Please draft a memo describing what claims of infringement that Apple should expect to see, and the responses Apple has to such claims. Be sure to address any non-infringement related defenses. (30 points)

Q3: You are a clerk to the district court judge who is considering the matter. The judge asks you to write a short bench memo that assumes infringement and advises whether a permanent injunction should issue. (7 points)