

## Question#1

### §112 Challenges:

First Holder's patent will be challenged for lack of **utility**. The three types of required utility are: **practical, beneficial, and operable**. Each must be **credible**.

**Practical** utility requires that the invention have enough **substantial** and **specific** utility to merit a patent. Holder's patent appears to have no practical utility issues because it fulfills a specific and substantial need in photography.

**Beneficial** utility requires that the invention not have a socially harmful or deleterious purpose. Lowell. There are no beneficial utility issues here as Holder's invention does not have an immoral purpose.

**Operable** utility looks to whether the invention can accomplish its alleged utility and that an inherently unbelievable undertaking is not suggested. In re Brana. While this is not an inherently unbelievable invention, it may have an operable utility issue because it may not be clear that it works. Claim 1 uses means for language, but the description just says that the PHOSITA could figure out the right combination of lenses and mirrors, but this may not be credible. This argument will probably fail, and Holder's patent is likely to survive any utility challenges.

Next is **enablement**, which asks whether the PHOSITA would have to engage in **undue experimentation** in order to make and use the invention. In re Wands. Holder's patent has some enablement issues. First, claim 1 describes a "lens sufficient." While the specification describes a modified Leica camera, it also states that the PHOSITA needs to figure out the correct combination of lenses and mirrors. As a result there is not much

guidance in the spec and claims that teaches the PHOSITA how to select a “sufficient” lens to combine with mirrors.

Claim 1 also calls out a “means for displaying” the image. This is presumably the viewfinder portion of the claim. Again, little guidance is given as to how the structure for this is to be built. The only guidance is a statement that the PHOSITA can determine the right combination of mirrors and lenses.

Claim 2, another “means for claim” is also not enabled. It depends on claim 1, which is arguably not enabled, and adds the additional element of a LCD viewfinder. An LCD viewfinder does not require or use mirrors (as stated in the facts and presumably known to the PHOSITA), so the guidance in the spec of using the right combination of mirror and lenses is of little value in building the “means for” structure. Therefore it appears that the specification does not provide sufficient guidance to enable claim 2. Furthermore the specification states that light must be reflected off of the mirror behind the camera’s lens or it will not work. The PHOSITA will most likely not understand this part of the spec when incorporating an LCD viewfinder.

The PHOSITA will have to engage in **undue experimentation** to build the invention, especially considering Holder needed 6 months himself to build it.

Next is lack of sufficient **Written Description**, which looks to whether the inventor was in **possession** of the **claimed** invention. Holder has an issue here because the claims are broader than the written description. First, the during prosecution, Holder added claim 2 which clearly introduced new matter, and should have been rejected by the examiner. The LCD viewfinder is described nowhere in the spec and is therefore new matter. As stated above the small description of a lens/mirror combination appears to rule

out LCD viewfinders all together. Next, claim 1 also presents a written description issue because it is not clear from the spec that Holder ever possessed the camera with reverse viewfinder claimed. The spec merely states that the PHOSITA would be able to determine the correct combination.

Next, is lack of **definiteness**, which requires that the PHOSITA would be able to understand what is **claimed** when read in light of the specification. The means for claims in both claim 1 and 2 present Holder an issue here. The PHOSITA may not understand the claims when read in light of the spec because the spec provides little guidance on the structure. The reference to “sufficient lens” in claim 1 also presents issues because “sufficient” may not be a term of art that the PHOSITA understands. Claim 1 also introduces some indefiniteness when it states “operator who is positioned in front of the lens.” The claim would be more definite if it stated “said lens.” The lack of the use of standard terms of art and support in the description may make these claims “insolubly ambiguous” and therefore indefinite.

Finally, is lack of a **best mode**. The 2-part analysis to determine whether the inventor concealed the best mode starts with the **subjective element** that asks whether at the time of filing the inventor knew of a mode of practicing the invention that he considered best. The **objective** part asks whether the disclosure is adequate such that the PHOSITA would be able to practice the best mode. While Holder disclosed his preferred camera in the embodiment, he may still fail both elements of this test. First, Holder knew of the right combination of mirrors and lens and did not disclose it. Second, Holder admits that the PHOSITA may not be able to figure out the best combination of mirrors and lenses. As a result the patent may lack a best mode.

**102 Challenges:**

**Dates and Prior Art:**

Holder's date of invention can be shown by proving a date of conception followed by corroborated diligence leading to a reduction to practice (RTP). Barabacid. RTP is defined as when the inventor has practiced an embodiment of the invention encompassing all elements and appreciated that the invention worked for its intended purpose.

Conception is defined as when the idea (with all limitations of the claimed invention) is so clearly defined in the inventor's mind that all that is necessary is the PHOSITA to RTP. If conception followed by corroborated diligence cannot be proven, Holder's constructive reduction to practice is his filing date of 7/1/1996.

Here Holder first conceived of his idea on 1/1/1995 and then completed the invention on 6/1/1995. As a result, Holder's first possible RTP date is 6/1/1995 and if there is no corroborated diligence it is 7/1/1996. Holder can corroborate diligence either through family or properly authenticated lab documents. Also, Holder's public use in his world tour through multiple cities in the US could show that Holder indeed RTP on 6/1/1995. Most likely the RTP date will be 6/1/1995 because Holder had a working version of the reverse viewfinder camera in use.

Prior art for 102 analysis includes all art in any field. Prior art must include all elements of the claimed invention in a single reference in order to invalidate it. In re Robertson. It must also be **enabling**. Schering.

**102(a):** Holder's patent will be challenged as invalid under **102(a)**, which requires that an invention not be **known or used by others** in the **US** before the **date of**

**invention.** It could also be challenged as invalid under **102(a)** if the invention was **patented or described in a printed publication anywhere.**

The first piece of prior art that could anticipate Holder's invention is the "abundance" of mirrors, lenses, and viewfinders in use by others. However, these references do not meet the all elements rule because according to the given facts, none of them include all elements of claim 1: a camera, lens, means for displaying the image to the operator in front of the lens (reverse viewfinder element). Nor do they include all elements of claim 2: camera from claim 1 with an LCD viewfinder.

The next piece of prior art is the 2/1/1994 photography magazine article, which qualifies as a printed publication. This article is clearly prior to Holder's potential RTP dates. This article can be a problem for Holder because it arguable meets each element in claim 1: use of camera, lens, and mirror as means to display. Even though the mechanism (standing in front of a mirror) for the display means portion is different than Holder's, it may still meet that element as an equivalent means in the "means for" claim. Wright. Here the mirror's use described in the article may be viewed as equivalent to using a smaller mirror attached to the camera itself as Holder's device does. However, claim 2 is not met as there is no description of an LCD viewfinder in the 2/1/1994 article and therefore this single reference does not anticipate Holder's invention.

The next is the 2/1/1995 photography magazine article. The invention described in this reference appears to meet the elements of claim 1 and claim 2 (as described above). There is a use of a camera, lens, and mirror as means to display (claim 1) plus the use of an LCD viewfinder to display the image (claim 2). This reference however, was known and used as of 2/1/1995, which is one month after Holder's apparent conception

date of 1/1/1995. If Holder can corroborate this conception date and diligence until his likely 6/1/1995 RTP date, this reference also does not anticipate Holder's invention under 102(a). The challenge for Holder will be to have some evidence of diligence before 2/1/1995.

The final is the patent of Another Inventor. The invention described in this reference appears to meet the elements of claim 1 and claim 2 (as described above). However, the publication date is not until 6/1/1998, which is before any of Holder's potential invention dates. Therefore it cannot anticipate Holder's invention under 102(a).

Next is **102(e)** challenge which requires that the invention was not described in a published application for patent in the US or PCT application designating the US (if in English) filed by another before Holder's invention date. The only piece of prior art to analyze is the patent of Another Inventor. His patent was published in 6/1/1998 and is backdated to the date of filing which was 12/1/1996. However, this does not invalidate Holder's patent because his invention date was 7/1/1996 at the latest and therefore pre-dates Another Inventor's patent for 102(e) purposes.

**102(g):** Holder's patent will be challenged invalid under **102(g)** as well. Here there is not an Interference so **102(g)(1)** does not apply. **102(g)(2)** could apply if the invention was made first by another in the US without abandonment, suppression, or concealment. As described above, the prior art references of the magazine articles and "abundance" of cameras, lens, and mirror do not include the same elements as Holder's invention.

Another Inventor's invention may invalidate Holder's under **102(g)(2)**. The invention described in this reference appears to meet the elements of claim 1 and claim 2.

There is a use of a camera, lens, and mirror as means to display (claim 1) plus the use of an LCD viewfinder (claim 2). However, the constructive RTP of Another Inventor is 12/1/1996, which is after each of Holder's potential RTP dates (6/1/1995 or 7/1/1996). Another Inventor would have to corroborate an invention date before 7/1/1996 at the latest (Holder's constructive RTP), 6/1/1995 (Holder's likely RTP), or 1/1/1995 (Holder's conception date) in order for this reference to invalidate Holder's patent.

Another Inventor could do this by proving a conception date with corroboration before Holder's conception date and corroborated diligence leading up to Another Inventor's RTP, which would then give Another Inventor priority. Another Inventor could also invalidate Holder's patent under **102(g)(2)** if he could show that Holder abandoned his invention between 6/1/1995 and filing in 7/1/1996. This is unlikely since Holder's time between RTP and filing was not unreasonable and there are no facts supporting the argument that Holder delayed purely for commercial purposes.

Based on the given facts it is unlikely that such evidence would be produced and used to invalidate Holder's patent under 102(g)(2).

**102(f):** Holder's patent can also be challenged for being invalid under **102(f)** if Holder did not invent the subject matter himself. In order to invalidate Holder's patent, there would have to be clear and convincing evidence that Holder did not himself invent the subject and that he got the idea from someone else's plan for improvement encompassing all elements and fully enabling. Campbell. Here there is no evidence that Holder derived his invention from another's plan of improvement. The first prior art reference that could be considered in the 2/1/1995 magazine article. However this article

post-dates Holder's likely date of conception of 1/1/1995. Another Inventor's prior art reference also post-dates Holder's date of conception.

**102(b):** The patent will be challenged under **102(b)** if the invention was **patented** or described in a **printed publication anywhere more than one year prior to filing date** in the US. Here Holder filed on 7/1/1996. Holder's critical date for 102(b) is 7/1/1995. As aforementioned, the 2/1/1994 magazine article does not meet all elements in both claim 1 and claim 2 of Holder's patent and therefore cannot invalidate it under 102(b).

However, the magazine article from 2/1/1995 qualifies as a printed publication and arguably describes an invention that meets both claims 1 and 2 of Holder's patent. See supra 102(a) analysis for 2/1/1995 article. Assuming the method of taking a self portrait using a camera, mirror, and LCD viewfinder for display qualifies as equivalents to the "means for" claims in Holder's patent, it anticipates Holder's patent under 102(b).

Another Inventor's patent was not published until 6/1/1998 and issued in 1/1/2000 and therefore does not anticipate for 102(b) purposes.

**102(b) challenge:** invalid if the invention was in **public use** or **on sale** in the US more than one year prior to the filing date in the US. Holder has a problem here as the invention was in public use during his "world tour" in June 1995. This is arguably public use because Holder showed the invention off to hundreds of people (without any confidentiality agreement or understanding) in major US cities before his critical date. Holder would have to argue that he always maintained control of the item as in Moleculon. Holder is likely to lose this argument because his use occurred out in the



open while touring major cities, which is distinguishable from maintaining control of the invention in a private residence or in the workplace.

**On sale bar:** Here Holder was specifically asked in June 1995 during his world tour whether the reverse viewfinder was available for purchase. He responded by saying he would be happy to make one upon return home and took their contact information down. Arguably this shows a willingness to accept an offer. Furthermore, Holder did not find the product's drawbacks at the time an issue, and therefore the product he toured with in June 1995 was ready for patenting then. He conducted no further fine-tuning or other experimentation to show that the offer in June 1995 was a general offer. Rather, the offer by the couple was clearly directed at the specific invention.

Holder likely is **barred under 102(b)** for both public use and having an offer for sale.

**102(c):**

Holder does not appear to have an abandonment issue under 102(c). Holder filed just over a year after his RTP, and he did not exploit his invention as a trade secret or expressly abandon the right to patent it.

**§103 Challenges:**

Obviousness challenge: Courts apply the Graham obviousness test: 1) determine the scope and content of the prior art 2) ascertain the differences between the prior art and claims at issue 3) find level of skill of PHOSITA 4) determine the obviousness and nonobviousness of the subject matter and 6) examine secondary considerations.

In performing step 1, the scope of the prior art includes all pertinent art in analogous fields provided it is from the same field of endeavor or is reasonably pertinent to the particular problem. Clay. The inventor is presumed to be aware of all references. In re Winslow.

Here the same references analyzed under 102 above are pertinent (see 102 analysis for list).

Step 2: Ascertain differences. The following chart shows each reference and its elements:

	<b>Mirrors</b>	<b>Lenses</b>	<b>Viewfinders</b>	<b>2/1/1994 Article</b>	<b>2/1/1995 Article</b>	<b>Another Inventor's Invention</b>	<b>HOLDER Patent</b>
<b>Elements</b>	Mirror	Lens	Viewfinder	Mirror	Mirror	Mirror (attached)	Mirror combination with lens (internal)
				Camera	Camera	Camera	Camera
				Lens	Lens	Lens	Lens
					LCD Viewfinder (attached)	LCD Viewfinder (attached)	LCD Viewfinder of digital camera (attached)

In comparing these sources, it is clear that Holder's invention is a combination of many of them. Each element of Holder's patent could be found in the prior art.

Step 3: Find level of the PHOSITA. Assuming the skilled mechanic standard familiar with camera manufacturing and use, it is clear that a PHOSITA could presumably learn how to combine the various references in the prior art.

Step 4: Determine Obviousness. Here Holder combined different items to create an improved camera that combined them all. Cameras before Holder's invention had viewfinders already. He simply added an additional element from the prior art (mirror) to reflect the image in a different direction. The combination worked as expected. KSR.

Moreover the prior art teaches/suggests/methods that show that the prior art was capable of providing a solution. Id. Holder just needed to combine the elements in the proper way for the type of use he desired. Holder's patent is likely to be found obvious when considering the prior art available.

Step 5: Secondary factors. None of the factors considered by courts look to undermine a finding of obviousness. Here Holder is not fulfilling a long but unfulfilled need. He was simply fulfilling a personal need.

Moreover, based on the prior art available, it looks that advances were being made consistently in the field. Holder's invention was not a breakthrough that had baffled PHOSITAs.

Finally, Holder did not produce his invention in an unconventional way that defied commonly held beliefs by PHOSITAs. Adams. Holder rather combined elements known to be effective and put them to a slightly different use than previously done.

Holder's best argument is to attempt to exclude the Another Inventor invention from the prior art, and then argue that his invention was the first to have the correct combination of mirrors and lens internal to the camera rather than using external mirrors. He could also argue that his combination was far superior to the prior art and therefore a major leap from the methods used such as standing in front of a mirror.

Holder's invention is likely obvious.

### **§101 Challenges**

Finally, **subject matter** challenge: Only laws of nature, physical phenomena, and abstract ideas are excluded from patentability. Apple may argue that the use of mirrors is

a natural phenomena and therefore unpatentable. However, the human intervention involved in the placement of utilization of the m

## Question2

First, Apple will be sued for **literal infringement**. The first step is for the court to construe the claims (as matter of law) starting with the claim language followed by the other parts of the patent (specification, description, prosecution history), and then finally extrinsic evidence. Once construed, the claims will be tested for literal infringement (question of fact). Then they can be tested for infringement under the Doctrine of Equivalents.

Holder's claim 1 includes the following elements: camera lens, means for displaying the image to the operator positioned in front of the lens. The "means for" structure described in the spec is for a combination of mirrors and lenses. The iPhone appears to literally infringe both of these elements because it includes a camera lens and a means to display the image to the operator in front of the lens. Because Holder's claim is a "means for" claim, it is limited to the structure in the specification. §112 ¶6. Therefore Apple can reasonably argue **noninfringement** because the structure disclosed in his patent uses mirrors and lenses in combination while the iPhone uses a computer chip converting light into digital information to then display on an LCD screen. Nowhere in Holder's spec is such a structure described or contemplated and therefore is unlikely considered a "means for" equivalent supporting literal infringement. Furthermore, Holder arguably **disclaimed** the use of digital cameras in the spec when identifying his best mode. T-Mobile. If disclaimed, Holder cannot sue digital camera producers for infringement.

Apple can also argue **noninfringement** of claim 1 because the preamble includes the term "camera." Apple can try to argue that its device is an "improved cell phone" not

an “improved camera.” Including the camera technology in a cell phone may not literally infringe in the minds of the fact-finder. They may see Holder’s product as limited to cameras only, not devices with photographic capabilities.

Holder’s claim 2 includes the claim 1 elements plus a means for displaying the image on an LCD viewfinder. The iPhone appears to also literally infringe this claim as it uses an LCD viewfinder as well. Apple can again argue that the “means for” structure described in the spec is not an equivalent to the computer chip technology that Apple uses. Rather Holder’s spec most likely describes (insufficiently) the method of using a mirror to display an image on an LCD screen as described in the 2/1/1995 article.

If the court agrees that there is no literal infringement, Holder can argue that claim 1 and claim 2 are infringed under the **Doctrine of Equivalents** because the iPhone does the same function in the same way with the same result. Winans. Again, comparing each element, the iPhone infringes claim 1 under the DOE: it has a camera lens and a means to display the image to the operator in front of the lens. Apple simply uses more advanced technology available in 2009 to achieve the same result. Using the internal computer chip is likely equivalent to an internal mirror/lens configuration that achieves the same result.

Claim 2 is also infringed under the **DOE** because Apple uses all the elements of claim 1 plus the use of an LCD viewfinder to display the image. Again the chip technology is likely equivalent when testing for infringement under the DOE. This equivalents analysis does not cover prior art and therefore would be accepted.

Apple best **defense** is **prosecution history estoppel**. During prosecution, Holder amended claim 1 to include “camera” before “lens.” Apple can argue that this

amendment surrendered devices that aren't primarily cameras because the amendment was required by the examiner to get past a definiteness rejection. Holder's best response is that high-tech photography equipment embedded in phones was unforeseeable in 1996, and therefore DOE does not apply. Festo.

Next, Apple will likely be faced with a claim of **indirect infringement** when users of the iPhone use it to take self-portraits and therefore directly infringe. To be liable under 271(c), Apple would have to have knowledge of the infringing behavior, have contributed a component that is a material part of the patented invention, and have no substantial noninfringing uses for their component. Here the iPhone's camera has substantial non-infringing uses because self-portraits are only one use of the iPhone camera. It is unlikely to be found to have contributorily infringed under 271(c).

Since there are substantial non-infringing uses, Apple would have to **actively induce infringement** to be liable under §271(b). Holder would have to prove either specific intent or circumstantial evidence to show the requisite intent to induce infringement. Here it is not clear if Apple induced infringement but advertising the self-portrait/reverse viewfinder and knowledge of Holder's patent could be circumstantial evidence to show inducement.

Apple can also assert the **defense of inequitable conduct**. Apple would need to show with clear and convincing evidence that Holder failed to disclose **material** information or submitted false information **with intent to deceive**. The **materiality threshold** is met if a reasonable examiner would have found the withheld or false information important in deciding whether to issue the patent. The materiality and intent elements are balanced by courts on a sliding scale. Here it is clear that Holder failed to

disclose several sources of prior art despite using other cameras and mirrors/lens in his modified camera. Holder also withheld the combination of mirrors/lenses despite not knowing if the PHOSITA could figure it out. Proving intent to deceive will be difficult however, especially since Holder is an independent inventor who simply followed patent examples while drafting his application. Most likely the sliding scale test would require more proof of intent for Apple to succeed in this defense.



### Question3

Parties seeking a permanent injunction must satisfy the 4-factor eBay test by demonstrating: 1) party has suffered an irreparable injury, 2) remedies available at law, such as monetary damages are inadequate to compensate for that injury, 3) considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted and 4) the public interest is not disserved by a permanent injunction.

Here the permanent injunction should not be granted. It would be a case of patent hold-up. Holder's contribution to the iPhone is very small compared to the huge success and technological breakthrough that the iPhone is. Holder's injury is not irreparable (he can still sell his camera or license it) and other remedies are better (reasonable royalty). Also the public would be poorly served by enjoining iPhone sales as the product is very popular. Finally, the balance of hardships leans against the injunction because enjoining iPhone sales would be a major blow to Apple, while Holder still can profit from his invention without the permanent injunction.