Dear current and future patent law students:

I haven't written an exam memo in Patent Law in quite some time, as most of what I had to say was in early memos. I decided to write one this year for two reasons. First, this was our first AIA exam, and that deserves mentioning. Second, I thought that only one exam was sufficient to publish as a whole, but parts of other exams were really good, so I wanted to provide them here.

First, the AIA. In general, the transition from the 1952 Act went quite well. For the most part, you were all up on the AIA quite well. Indeed, despite only one "standout" exam, all the exam answers were really high quality. This is the first year that I can remember that nobody got a C or below. Even the lowest score in the class was very good in what it answered – it just missed some issues.

That said, it's not all roses. Here are some items that stuck out on several exams (for some, most of them), which I mention here so that future readers of the samples don't get tripped up:

1. Two or three exams added "doctrine of equivalents" as an option for the all elements rule. This is a definite no-no. All elements means all elements. If it's not all elements, then we're talking obviousness. I'm not sure where that idea came from – if there was a supplement or something, please let me know (anonymously if you wish) so I can warn students away! I am reproducing one of the answers below because it is otherwise fabulous, but it lost points (not too many) for missing this basic issue.
2. The answers on Q4 weren't great. I'm reproducing the best one below. Most of you did well on 102(g), but did not discuss a lot of the other issues. Some of you said "We need to do a 102(g) analysis" but then didn't do it to see if it changed the outcome – which was the question!
3. You all did really well on literal infringement all elements analysis. However, very little attention was given to claim construction in Q2. Every exam said, "we need to do claim construction" but then nobody did it. What does parallel mean (when you bend the flexible banana, the ribs bend out of parallel)? What does interconnected mean (one side? both?)? What does it mean to have two curvilinear sides (does the partial piece on the flexible cutter count)? Other areas? I didn't expect anyone to hit all of these points, but there was plenty of ambiguity there, like our picture frame exercise. In general, you can't really tell if the elements are there if you don't know what they are.
4. On the Doctrine of Equivalents, nobody discussed how Warner Jenkinson requires an equivalent of each element. So if the second curved side is missing, then how can you have an equivalent of the side?
5. On the AIA, many of you did not flag the banana slicer as on sale by Pat (but within an exception), and a few of you missed that this on sale activity blocked RO's filing. This is a key AIA point.
6. On Q1 indefiniteness, several of you talked about a means plus function claim – but it's not clear there were any claim elements in the form of: means for [performing some function] where the actual structure wasn't there. That said, there's law that says you can have substitute words that mean this. I didn't think there were any, but you could have made the argument if you thought there were. I applaud the creative thinking, but if you want to argue for something, it helps if you point out why it is so. I didn't deduct any points for this, but it didn't help you that much either.

7. One other piece of low hanging fruit that nobody took up is that Nautilus had a nearly identical spacing issue as the ribs here – there was a great analogy to be drawn, but nobody did so. Similarly, the Graham steps require you to identify the skill level of the PHOSITA. You all said good stuff about the PHOSITA not being an automaton and knowing all the art, but only one person actually identified the skill level, which has an effect on whether something is obvious.

None of these were huge points losses, but if more than one of these resonates with you, it might explain some of the separation in grading.

On a final note, the Amazon reviews are real. What's great is that they are all sarcastic jokes – and there are plenty more if you look this thing up. They're hilarious. I put them in to use as secondary considerations that this was obvious. Every one of you who addressed them took them seriously and said they showed unfelt need, teaching away, commercial success, etc. That's fine – you still scored the same points for noticing the issue. I just found it interesting that you all took them so seriously – I guess exams will do that to you!

Below are some of the top answers for each question that were not *the* top answer. I'm picking from different exams here.

Q2 (though ignore the statement about doctrine of equivalents for anticipation)

Utility § 101 and 112

The first hurdle to overcome in potential invalidity of the '123 patent is utility. There are three types of utility that the inventor must show. The first is operable utility: an invention must work for its intended purpose. This requirement is presumed unless the Patent and Trademark Office (PTO) can show that a PHOSITA would find the invention inherently unbelievable. The second type of utility is substantial/practical utility which requires the inventor to show both specific and substantial utility. Brenner; In re Fisher. A specific benefit to the public is often examined to see if an invention has substantial/practical utility. Id. Finally, beneficial utility requires that an invention is not socially harmful. Juicy Whip. Additionally, the invention need not be better than what is on the market. Lowell.

Here, Pat's '123 claim should pass all three of the utility requirements. Primarily, a PHOSITA should be able to determine that the banana slicer works for its intended purpose (operable). Similarly, the banana slicer does not appear to be inherently unbelievable since as indicated, people have been slicing fruits since the iron age and there have been numerous inventions that have been made to slice various objects. Furthermore, there appears to be a specific and relatively substantial benefit to the public. As indicated from the Amazon reviews, slicing a banana can be quite tedious, but the banana slicer solves the extreme hassle of slicing a banana by hand (and solves marriage problems→divorces are expensive). One could potentially argue that a banana slicer is not a substantial benefit to the public, but this argument would fail since courts seem to look at benefits relatively and in terms of fairness. Although the advancement may seem trivial, there is an immediate public benefit that is obtained and therefore substantial/practical utility shouldn't be a problem. Finally, there is no deceit or socially harmful aspect of the banana slicer and therefore it has beneficial utility.

Enablement § 112

The enablement provision requires that the specification describes the invention, “in such full, clear, concise, and exact terms as to enable a [PHOSITA to make and use the invention]. The invention must be described clearly enough so that a PHOSITA can understand well enough how to make and use it. According to Incandescent Lamp case, this is assessed as of the time of filing and examines whether a PHOSITA would have to perform undue experimentation to “make and use” the invention. (Edison did ridiculous amount of experimentation to find what worked best in the lamps while Sawyer and Man just tried to claim all fibrous and textile materials). Enablement limits how broadly patent claims can reach and regulates what degree of speculation is allowed. According to Wands, there are a few factors to consider: quantity of experimentation necessary, amount of direction presented, presence of working examples, nature of the invention, state of prior art, relative skill of those in the art, predictability/unpredictability of the art, and breadth of claims.

The first claim is far broader than the second one and I will exam this claim first. Pat appears to do a good job in the specification informing the PHOSITA of what his invention is. However, one may argue that claim 1 is too broad and is not enabled because Pat merely indicates that preferred embodiment which is “approximately 1 mm wide”. In claim 1 Pat claims “ribs sufficiently thin to form means for cutting transversely through a banana.” This seems to be similar to Incandescent Lamp because Pat is claiming a potentially broad range of widths for the ribs without actually knowing if they work. A PHOSITA would have to experiment with numerous rib widths to know where this claim ends. A PHOSITA can look at the technology available and the previous inventions in relation to the banana slicer, but it is unlikely that this would enable the claim 1 since claim 1 is so broad and claims ribs width “sufficiently thin to form means for cutting transversely through a banana.” Therefore, although a PHOSITA could make the invention in claim 1 it may require undue experimentation to determine the range of rib widths covered by the patent. Based on this, claim 1 appears too broad and more experimentation needed to be done by Pat in order to make this claim. This appears to be the only potential enablement issue with claim 1, based on the prior art, everything else seems to be enabled by the specification or references that can be made to past slicers. (space between the ribs is undefined, but prior art/PHOSITA knowledge would likely cover this) (On the other hand, claim 2 is much narrower and appears to be enabled without issue.

Claim 2 indicates a width for both the rib width and the space between ribs. Based on the claim, a PHOSITA should have an easy time making/using the invention. (the claims do not indicate what the ribs should be made out of, but this should not be a problem because the specification indicates the preferred embodiment and there should be no undue experimentation by the PHOSITA to make or use the invention because of this).

Written Description §120 and 132

Written description requires that an inventor describe what is claimed, and claim what is described. This issue arises in distinct circumstances: 1) where inventors amend their claims after filing to add distinctions and claim elements not described in the original patent application (not applicable here); and 2) where inventors claim too broadly (applicable here). The second requirement overlaps a great deal with enablement (debate over whether enablement and written description are actually different). The key to written description is possession. Another key to written description is to preclude patent owners from later claiming what they did not think of at the time they filed applications. Gentry Gallery (but then there is always the problem of slightly altering an invention to avoid infringing etc.). Overall,

the disclosure of the application relied upon must reasonably convey to PHOSITA that the inventor had possession of the claimed subject matter as of the filing date.

Pat did not amend any of his claims for the '123 patent so the examination turns to whether his claims are too broad. For claim 1, there is the same issue about the rib widths. It is not reasonably conveyed from the specification that Pat is in possession of all rib widths that are "sufficiently thin to form means for cutting transversely through a banana." In the specification Pat merely describes the function of the ribs as they pertain to the slicer and indicates that plastic is their preferred embodiment. Pat does not indicate what widths will likely work and merely indicates that it needs to be able to cut without compromising their structural integrity. The specification does not reasonably convey to the PHOSITA that Pat is in possession of all ribs "sufficiently thin to form means for cutting transversely through a banana." Therefore, I think claim 1 encounters the same issue from enablement, but this time it is that Pat does not possess this invention.

On the other hand, it appears that, as of the filing date, Pat was in possession of claim 2. Pat indicates the width of the ribs and the distance between them. A PHOSITA could easily conclude that Pat is in possession of this banana slicer.

Definiteness § 112(b)

Definiteness was examined previously, but is the next step in examining the validity of a patent. Again, the claims must sufficiently lay out the metes and bound to put the public on notice of what is protected under the patent.

Claim 2 does not appear to have an issue with definiteness because the potential definite issues that are in claim 1 are ironed out in claim 2.

Novelty/Anticipation § 102(a)

Under the AIA, novelty is covered under 102(a)→no geographic restrictions and includes inventor's own work. This rule states that a person is entitled to a patent unless 1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention or 2) the claimed invention was described in a patent issued [to another]… or in [another's] application for patent published…[that] was effectively filed before the effective filing date of the claimed invention. Therefore, there are five categories of prior are in 102(a)(1) and a sixth category in 102(a)(2).

The critical date for patents is crucial under the AIA and is the effective filing date of the patent application being evaluated. Based on the information, Pat's effective filing date is 1/1/2015.

The first step of novelty analysis is to determine what qualifies as prior art under 102(a). Based on the categories listed above, it appears that the iron age knife, the hand slicer, and the egg slicer are all prior art under 102(a)(1). All occurred before the effective filing date of 1/1/2015 and were either in public use (knife), on sale (hand slicer→maybe lost art doctrine, but there is a picture included so seems unlikely), or otherwise available to the public (egg slicer).

Rip's patent application would also be considered prior art under 102(a)(2). Rip's application was published on 3/1/16. 102(a)(2) includes any patent application filed by another inventor if that application is eventually published (it was) as a US patent application or issued as a US patent. This

patent application (9/1/14) was filed before Pat's effective date (1/1/15) and therefore since it was published would also qualify as prior art for the novelty analysis. Finally, Pat's prototype would qualify as prior art under 102(a)(1). Pat finished the prototype (4/1/14) prior to his effective filing date (1/1/15) and under 102(a)(1) references created by the inventor are included in the prior art.

The second step of the novelty analysis is to determine whether a prior art reference under 102(a) can be excluded from the prior art under exceptions in 102(b). The goal of 102(b) is to permit inventors to disclose and even exploit their inventions commercially for one full year before they must file for patent rights. 102(b) posits that disclosures made 1 year or less before effective filing date shall not be considered prior art under (a)(1) if: (A) the disclosure was made by the inventor or joint inventor or by someone else who got the material from the inventor/joint inventor or (B) the subject matter disclosed had, before such disclosure, been publicly disclosed by the inventor or joint inventor … Based on this, the knife, the hand slicer, and the egg slicer do not fall into this exception and are not excluded. On the other hand, Pat's own prototype and production of said prototype are excluded under 102(b)(1)(A) because Pat, as the inventor, disclosed the subject matter and it was within a year of the critical date (effective filing date i.e. 1/1/15).

102(b)(2) covers the exceptions of prior art from 102(b). This section looks are when disclosures appearing in applications and patents are not prior art. (A) excludes the application or patent when the subject matter disclosed was obtained directly or indirectly from the inventor or joint inventor. (B) excludes patents and applications where the subject matter disclosed had, before the subject matter was effectively filed, been publicly disclosed by the inventor or a joint inventor or another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor. (C) excludes patents or applications where the subject matter disclosed and the claimed invention, not later than the effective filing date of the claimed invention, were owned by the same person or subject to an obligation of assignment to the same person.

Based on 102(b)(2)(B) Rip's patent application will likely be excluded from the prior art because of this exception (first to file or publicly disclose system). On 8/1/13, Rip started looking for investors after he had the idea of a potential slicer, but no investment was obtained.

Rip's idea did not become public at this point. It is unclear how many investors he went to, but there is no indication that his invention was now known to the public and since there was no real offer to sell these requests for investments do not appear to create an earlier public disclosure date for Rip. Alternatively, on 4/1/14, Pat finished his prototype and immediately put it into production. Similar to Rip's requests for investments, this event didn't make his invention public, but on 7/1/14 Pat's slicer debuted on Amazon and was receiving reviews from customers. At this point Pat's invention is on-sale and very much in the public eye. Subsequently, Rip files a patent application on 9/1/14. Based on this information, Pat's subject matter was disclosed publicly prior to Rip filing his patent. Rip's invention does not appear to have been publicly revealed, on sale, otherwise in public etc. before Rip filed for a patent so based on the information given it appears that Rip's patent would be excluded from the prior art references for novelty due to 102(b)(2)(B). The only way Rip could still be included in the prior art would be to say that Pat's commercial exploits did not truly disclose the invention with the details of the invention itself. However, this argument is unlikely to work and Rip's patent is likely excluded as prior art.

The final step in novelty requires a careful analysis of whether the information disclosed in any single prior art reference is sufficient to anticipate the relevant invention (would it render the invention non-novel). In order to anticipate, a single prior reference must meet the all elements rule or the doctrine of equivalents. The all-elements rule requires that the reference contains every element that is claimed by the subject patent, but isn't as easy as it sounds. On the other hand, the doctrine of equivalents the potential product may not be literally anticipating, but if the product performs substantially the same function, in the same way, and obtains the same results then the patent is anticipated by that reference. Warner Jenkinson.

Here, the knife does not meet the all elements rule, nor the doctrine of equivalents. The patent is explicitly attempting to improve on the knife in the realm of slicing bananas and includes element such as an "elongated plastic frame conforming to the shape and area of a typical banana". The knife has no equivalent to this element.

The hand slicer has a similar problem as the knife. The banana slicer is specifically made to slice bananas and includes that as an element. The hand slicer was the length of a potato and that would not fit a banana. The element in the banana slicer that indicates that frame should be shaped like a typical banana is not found here and therefore this prior art reference does not anticipate the invention either.

The egg slicer has the same issue. the egg slicer contains basically every element of the banana slicer except that Pat's invention requires the plastic frame to be shaped like a typical banana.

None of the prior art references include all the elements nor its equivalents because Pat's invention is specifically tailored to bananas. With the unique shape of a banana, no other slicing mechanism would anticipate every element of the banana slicer because Pat made the slicer shaped like a banana. (the only thing that would have all the elements would be a banana shaped slicer or maybe a cylinder/elongated shape that could fit a banana →could cover doctrine of equivalents). Overall, Pat should not have any issues with novelty. Finally, there does not appear to be any type of inherent or accidental anticipation present (the prior art did not appreciate that it was creating this invention)

Obviousness § 103

The obviousness requirement examines the technical, rather than economic, triviality at the time of the effective filing date. According to the AIA, inventor will not receive a patent if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a PHOSITA. Courts apply the Graham test to determine obviousness. The test includes: 1) determine the scope and content of the prior art; 2) ascertain the differences between prior art and the claims at issue; 3) find level of ordinary skill in pertinent art (Winslow: PHOSITA who knows all the art); 4) determine whether the subject matter is obvious; and 5) weigh secondary considerations to determine obviousness.

For step one, the references that count as prior art under section 102 also count under section 103 as long as they are pertinent references in analogous arts. Therefore, all three prior art references considered in the novelty analysis are examined here because they are all analogous.

The second step examines the differences and the differences between Pat's invention and the prior art was discussed above. Additionally, as indicate above, it is presumed that the PHOSITA knows all the pertinent prior art. Winslow.

Looking at these factors, there is a strong argument that the '123 patent is invalid due to obviousness. The prior art includes multiple references that use almost the exact same technology as Pat only. Although Pat can clearly distinguish his patent as one for bananas, the same general technology is being used in the prior art. Pat may argue that slicing bananas is different than slicing eggs and the use of plastic for the ribs is not obvious, but a PHOSITA would probably find Pat's extension predictable based on the art. Pat is likely to lose any argument he makes based on obviousness, but his strongest one would probably be that it is not obvious to use plastic to cut the bananas. However, based on the prior art it seems that his invention is predictable to a PHOSITA and is therefore obvious.

Priority

Priority was slightly examined previously, but essentially Pat should not have a problem with priority because although typically the first to file wins, there is an exception when the second filer is the first to publicly disclose (Rip's search for investors does not qualify as a public disclosure). Here, as indicated previously, it appears the Pat publicly disclosed on 7/1/14 when his banana slicer went on Amazon. Rip did not file his patent until two months later. Pat has priority because he disclosed first.

Q3 (This was far and away the best answer to Q3, and note that it's not even that long – note the attention to claim construction issues – all element analysis depends a lot on what the elements mean)

Under § 271(a), Pat will argue that Rip's flexible slicer literally infringes both claim 1 and claim 2 of the '123 patent. Literal infringement requires that all elements from the claims in the patent are found in the infringing device. In analyzing a literal infringement claim, the claim language provides the starting point to determine if the alleged infringing product contains the elements of the patent being infringed. Other parts of the patent document can be used as well, such as the specification, drawings, and prosecution history. Claims are interpreted as a matter of law in Markman hearings, but the application of the claims is a question of fact for the jury.

Claim 1. Pat will try to argue that Rip's device literally infringes claim 1 because it has all of the elements required by the claim. First, the allegedly infringing device is shaped like a typical banana; just as claim 1 requires. Secondly, the shape of the frame is curvilinear, also required by claim 1. Next, Pat will attempt to argue that the term "elongated frame" does not preclude the idea that the frame could be flexible, which would encompass Rip's device. This change would render the use of Rip's device to have the same effect as Pat's device, which falls under literal infringement. If that did not work, Pat will likely argue that the one flexible side falls is equivalent to having a solid side as it still makes up the frame of the device. The cutting ribs on Rip's device are also evenly spaced, parallel ribs interconnecting on the frame, which is not limited in the claim language to being attached to just one side of the device. Lastly, Pat will argue that the "sufficiently thin" language isn't limited to the preferred embodiment of the specification of 1 mm and could be any wider or any smaller than 1 mm as long as it cuts through bananas.

In his defense, Rip should argue that part of claim construction is to look at the drawings in the patent, which clearly indicates that Pat intended for the device to have one solid frame and any device without the completely solid frame does not infringe. Additionally, the term "interconnecting" isn't referring to the interconnectivity between one side of the device and the ribs, but means that the ribs are fully connected to both sides of the device. The function of Pat's device is also clearly to cut bananas, where

the flexibility in Rip's device allows for a user to cut other elongated foods; which would not infringe the means plus function portion of the claim.

Claim 2. Many of the same arguments apply to the infringements of claim 2 from the infringements of claim 2. The biggest difference in Pat's arguments would be to the specific nature of the widths of the rib and the cutting space. Claims are read to not render other claims in the same patent invalid. Therefore, the differentiation in claim 2 indicates that claim 1 meant any size rib to cut the banana, which would cause Rip's device to fall within claim 1 as a broader claim.

Additionally, Pat will argue that a doctrine of equivalents analysis would cause Rip's slicer with its 1.2 mm cutting ribs and 4.3 mm space between the ribs to be found infringing because a 1.2 mm rib and a 1 mm rib are equivalent and the same with a 4.3 mm space and a 4 mm space. An average consumer would not be able to tell the difference between these measurements since they are so small and would look the same to the naked eye. Rip's noninfringement defenses as stated in regards to claim 1 would still apply to claim 2.

Q4 (This answer got 11.5 out of 15 – the next closest was 7.5. Note to future students – no credit was available for 102(c) and (f) as they were not implicated. It's OK to cover your bases, but don't think that's why this answer scored well)

Pre-AIA (1952 Act) prior art is generally defined with reference to the patent holder's date of invention, rather than the patent's application filing date. Importantly, the date of invention is dependent on the date of the inventor's conception and whether the inventor was diligent in reducing the invention to practice by making a working prototype. There are four main categories of pre-AIA prior art that may anticipate an applicant's invention, rendering it non-novel, set forth in: 102(a),(e),(g) and (b).

102(a):

An invention will not be eligible for patent protection if, before the date of invention, 1) the invention was known or used by others in this country, or 2) it was patented or described in a printed publication anywhere (US or foreign). Pat's invention date is the critical date here. Since the facts suggest that Pat conceived of the idea on January 1, 2014, but only finished a prototype on April 1, 2014, his invention date will be the point in time where there was a RTP. Thus, prior art existing before April 1, 2014 will need to be assessed.

Only inventions "on sale" within US enter the prior art, while foreign sales are NOT within the prior art under the 1952 Act; thus, the British company's hand slicer does not need to be assessed as prior art.

The first piece of prior art is the invention disclosed in the EggCyclopedia, which was publicly known via printed publication somewhere in the 1990s. This comes before Pat's invention date and needs to be assessed for potential anticipation. Arguably, this invention fails to meet the all-element rule and will not anticipate Pat's banana slicer.

102(c): not implicated because there was no abandonment.

102(e): An earlier invention will disqualify the applicant if before the applicant's invention date 1) it was described in an application for patent that was pending in the PTO; and 2) the pending application was ultimately published and/or granted. This is irrelevant to the situation, since Rip filed his patent months after Pat's invention (RTP) date.

102 (f) (DERIVATION): The patent applicant must be the inventor, not one who has learned of an invention from someone else- not implicated here.

102(g): (PRIORITY): It was not already invented by someone else who was diligently proceeding toward making the invention & patenting it. Priority goes to 1st inventor to reduce an invention to practice without abandoning the invention.

While Rip may think this might give him priority, the rule is that the first inventor to RTP gains priority, and this was technically Pat; that being said, an argument could be made that the first to conceive (Rip) can prevail over the first to RTP (Pat) if the first to conceive showed unbroken diligence in his experimentation. The facts suggest that Rip was confident in his idea (since he shared it with venture capitalists), but there is not enough information to decide whether this is truly diligent experimentation or whether this would count as marketing tests and fall outside of allowable experimentation.
ELIZABETH

102(b): Statutory bars

An invention must also be new in the sense that inventor may lose her right to a patent if she does not file her application in time. §102(b) statutory bars, also known as loss of right, state: an inventor must file no later than a year after the invention was 1) patented or described in printed publication (in this or foreign country) or 2) in public use or put on sale in this country.

Pat filed on Jan 1 2015, making the critical date Jan 1 2014; since there is no fact that suggests he was publicly using his invention before this, no statutory bar should be triggered.