Abbreviations

- Hudson University = HU
- milli-Roentgens (mR)

Question-1:

Interference: (The interference count will be on claim 1 of each application. Due to the means plus function language of each claim and differing spec info, it could be argued that the claims should not be placed into an interference, but I am assuming that this is not the point of this question).

The issues disputed will involve the timing of conception and reduction because based on the facts, Holder is 1st to conceive, but 2nd to reduce and 2nd to file. If Holder can corroborate his date of conception with a witness and then prove reasonable diligence from HU's conception through Holder's reduction, then Holder will have priority over HU under 102(g). Proof of conception will be difficult for Holder because he did not admit that he read the article, so it is unclear how he could show how he came up with the 2000mR number in the first place.

Patent Law Risch

Question 2:

Memo to Holder

I. §101 Subject Matter(SM)

Surpsisingly, Holder's patent could be invalid for being unpatentable SM. Patentable SM broadly includes processes, machines, manufactures and compositions of matter. 101. Case law has provided 3 specific exceptions to patentable SM: laws of nature; physical phenomena; and abstract ideas. Bilski. Holder's patent does not specifically fall into any of these 3 exceptions, but it may fall under the new Prometheus rules.

Prometheus recently held that applying physical phenomena in nothing more than a conventional way is unpatentable SM. Here, the physical phenomena is that hard boiled eggs release 2000mR of sulfur. Devices(like the German Device) that can detect 2000mR of are already around and after that, Holder was really only using conventional techniques to program instrumentation. The fact that Holder's spec said that any sulfur detector would work could be used supports conventionality. However, although an argument could be made that Holder's device would be unpatentable under the new Prometheus rule, I don't see the lower courts and the CAFC rushing to adopt it. The CAFC would likely show the Supreme Court that precedent clearly shows that arguments based on whether a device is conventional should be handled under 102 and 103 and not 101.

II. §112 Requirements

A. Utility

Holder's Egg Detector easily meets the 3 separate utility requirements of 101/112. First, **operable utility** requires an invention to work for its intended purpose and it to be possible. Quigg. Second, **practical utility** requires that an invention have specific and substantial utility, a real-world practical use. Fisher. Thrid, **beneficial utility** requires that the claims – debatably - must not be frivolous or injurious to the public. Lowell. Here, **both claims** of Holder's patent meet the utility requirements because there is no reason to suggest that the invention would not work for its intended purpose(operable); the invention has the practical and real world utility of detecting rotting eggs(practical); and even if the courts still applied beneficial utility, this invention could not be labeled immoral or frivolous.

B. Enablement

Enablement requires that an applicant describe the invention clearly and fully enough, so that a PHOSITA would be enabled to make and use the invention without undue experimentation. 112-P1; Wands. It is highly unlikely that there would be any enablement issues here because Holder describes what he did in the spec and claims it in enough detail to enable a PHOSITA to make the device. All the PHOSITA would have to do is modify an existing sulfur detector to set off an indicator when the reading reaches 2000mR. A PHOSITA of sulfur detectors could easily add a program to make the instrument display some kind of indication at 2000mR without any undue experimentation. The same follows for claim 2 LED.

C. **Written Description**

The written description requirement is used to ensure that the inventor had possession of the invention on the filing date and prevents the inventor from drafting claims that are broader than what they invented. Eli Lily. As for patent validity, there is no reason to doubt that Holder possessed a modified sulfur detector with indicating means using an LED or other similar indication.

D. **Definiteness**

Definiteness requires that the claims particularly pointing out and distinctly claim the subject matter that the applicant regards as his invention. 112-P2. A claim is only indefinite if it is insolubly ambiguous, which means that a PHOSITA can not construe the claim – even with difficulty - when the claim is read in light of the spec. Energizer-Holdings. If means plus function language is used for a claim, then the corresponding structure for accomplishing the function must be in the spec. 112 P6.

Here, it is not likely that a PHOSITA would have trouble construing the claims when read in light of the spec. The German sulfur detector is the corresponding means for accomplishing the function of detecting sulfur It is still not indefinite, despite the spec saying "a German sulfur detector." Even if there are multiple German sulfur detectors, a PHOSITA would not have trouble construing **either claim**. This is similar to Orthokinetics where there were no specific automobiles.

III. §102 Novelty & Statutory Bars

A. Date of Invention

To do the novelty analysis under 102, we need to know applicant's possible dates of invention. The date of invention is generally determined by the date of reduction to practice (RTP). The filing of a patent application serves as a constructive RTP, giving the default date of invention. However, the applicant can submit evidence of earlier actual RTP, and in litigation this evidence needs corroboration by a witness. Barbacid. The date of invention can be conception if the applicant can prove it by corroborated evidence and that the applicant worked with reasonable diligence from the date of conception by the second conceiver through reduction. 102(g); Barbacid.

Consequently, here the date of invention will depend on what corroborated evidence that Holder could submit. Both claims assumed to have same date. Possible dates of invention are:

- **The Later Dates**
    - 3/16/2013 (Holder Files – default date)
    - 8/1/2012 (Holder RTP)
- **The Earlier Dates**
    - 5/1/2012 or 5/2/2012 (Holder conceived)

B. Anticipation

Anticipation requires that each and every element in the claim to be found – either expressly or inherently – in a single prior art reference. Robertson. An element is inherently present if extrinsic evidence shows that the element in question is **necessarily present**. Robertson.

If Holder gets the **earlier invention date**, then there is no single prior art reference that **expressly** contains the element of an indicator when 2000 mR is reached for claim 1. The HU patent is 102(e) prior art if Holder gets the later dates, discussed below.

The German sulfur detector is only available in Germany, but is discussed here to make an important point about inherent limitations. The German sulfur detector does **expressly or inherently** contain all of the elements of claim 1. It has the means for detecting 2000mR/hr and it does have a display screen which is an indicator for when 2000mR limit is reached. Thus the indicator is **necessarily present**. The German detector would need a publication/patent describing it for it to anticipate in the US though since it is only available in Germany and possibly(unlikely) unkown in the US.

The article from the professors did have the 2000mR limit, but did not expressly mention any indicator other than the professors reading their measurements. An argument could be made that the article also had the inherent limitation because if the professors are recording mR, then they clearly have an indicator for reaching the 2000mR limit as well. The argument is not as strong as the device having the inherent limitation though and may fail.

Claim 2 is not anticipated regardless of invention date because nothing in the prior art discusses an LED indicator at 2000mR.

C. **102(a): Known or Used in US**

No patent can be granted if an applicant's invention was known or used in this country before the applicant's invention date. 102(a). **Prior knowledge** under 102(a) must be prior public knowledge that is reasonably accessible to the public. Nat'l Tractor Pullers. Knowledge by a few people working together will not satisfy public knowledge. Id. Consequently, any prior

knowledge held solely by the HU professors working together would not count as prior knowledge.

Prior use under 102(a) does not require knowledge by the public at large and can be satisfied by openly done work, such as in an open oil field. Rosaire. There is nothing to suggest that the work done by the HU professors was done in the open, so any HU work is not public use.

However, it does seem that the HU professors had a device similar to the German sulfur detector, so if the argument that the German detector **expressly and inherently** contains all of the limitations of claim 1 from above could be applied to sulfur detectors used in the US, then those devices would give Holder a 102(a) rejection for **public use or knowledge** if those devices were known and used in the US. This may or may not be the case.

Holder would need to argue that the display on any sulfur detectors publicly known or used in the US are not indicators as used in his claim, but he would likely have some trouble. Holder could also argue that the "egg detecting" part in the preamble of claim 1 is a limitation that the sulfur detectors do not have and that the general rule for not using the preamble as a limitation should not apply here. However, one can not obtain a product patent when discovering a new use for a product. Hafner. That largely appears to be what Holder has done here. He has really just taken a sulfur detector and applied it to the use of finding eggs.

In the unlikely event that no detectors similar to the German device exist in the US, then Holder should not have any public use or knowledge issues for 102.

D. **102(a): Patented or Printed Publication**

No patent can be granted if an applicant's invention was patented or described in a printed publication in this or a foreign country before the applicant's invention date. 102(a). A printed

publication needs to be sufficiently publicly accessible to be considered a printed publication. Klopfenstien. The article by the HU professors does not become sufficiently publicly accessible until 3/20/2012, which is the date it hit the newsstands. Peer review or an article being approved for publication is not enough to show sufficient public accessibility. Again, it is debatable on whether this article could anticipate by inherently containing all the limitations based on the argument that sulfur detectors are indicators. It is likely that the German device is patented and that there is ample documentation on it, so these documents could anticipate.

E. **102(b): Patented or Printed Publication Statutory Bar**

No patent can be granted if an applicant's invention was patented or described in a printed publication in this or a foreign country more than 1 yr before the applicant's filing date. 102(b). Same rules as above apply for patents and printed publications under 102(b) with adjustments made for the timing differences. The article by the HU professors would not lead to a rejection under 102(b) because it's publication date was after the critical date for Holder's patent. Holder filed on 3/16/2013, so his critical date is 3/16/2012. The article did not publish until 3/20/2013. Therefore, Holder does not face any 102(b) printed publication rejections. No patents argument different than 102(a) is relevant.

F. **102(b): Public Use or On Sale Statutory Bar**

No patent can be granted if an applicant's invention was in public use or on sale in this country more than 1 yr before the applicant's filing date. 102(b). There is no mention of Holder or the HU professors' invention was in public use or on sale at any point in time. And if nothing like the German sulfur detector is sold in the use, then no other device will cause a problem for Holder either.

G. **102(c): Abandonment**

Holder does not appear to have an abandonment issue under 102(c). Holder filed around 7.5 months after his RTP, and he did not exploit his invention as a trade secret or expressly abandon the right to patent it. 7.5 months is not an unreasonable delay for an individual filer.

H. **102(e): Secret Prior Art**

No patent can be granted if an applicant's invention was described in a patent application in this country before applicant's invention date. 102(e). If Holder has to use his reduction date or later for the date of invention, the HU patent will be 102(e) prior art against him. Although claim 1 for Holder's patent are nearly identical, an argument can still be made that Holder is not anticipated. This is because both use means plus function language in claim 1. A means plus function claim is construed only to cover the disclosed structure in the spec and its equivalents. Holder's electronic meter and HU's test strips would likely not be equivalent for anticipation Holder would arguments that a resettable electronic meter is a substantially different way to detect eggs than a single use test strip. Graver Tank

I. **102(f) Not the Inventor**

No patent can be granted if an applicant did not invent the subject matter of the invention. 102(f). Even if, it was shown that Holder read the HU article, the article did not have everything Holder did. Generally, help from another does not constitute derivation, unless the help encompasses (1) the **entire plan** of the improvement and (2) is **fully enabling** (Agawam). Again based on the inherent argument it is debatable on whether the article contained an entire plan of making an indication for when 2000mR is reached. Holder, would have to argue that the article did not contain the entire plan and that modifying the instrument to make a specific indication at 2000mR is the real invention. Again claim 2 would be fine under 102(f).

J. **102(g)(1) Interference**

See problem 1.

K. **102(g)(2) Not Abandoned, Suppressed or Concealed**

No patent can be granted if applicant's invention was made in this country before applicant's invention date and has not been abandoned, suppressed or concealed. 102(g)(2). Holder could face arguments that he delayed unreasonably after reducing to practice, but could use same argument as in 102(c) above.

IV. §103 Obviousness

No patent can be granted if applicant's invention would have been obvious to a PHOSITA in the relevant art at the time of the invention based on pertinent prior art. 103(a). Obviousness is determined by using the Graham test, which says to: 1) determine the scope and content of the prior art 2) ascertain the differences between the prior art and claims 3) find the level of skill of PHOSITA; and 4) determine the obviousness and nonobviousness of the subject matter and 5) examine secondary considerations.

A. **Scope and Content of Prior Art**

To analyze obviousness we must first determine the prior art that is in scope, which means that it is analogous prior art. First, the type of prior art must be an allowable type of prior art for a 103 analysis. Based on this the prior art that is in scope would include, the HU article (if it is known in the litigation), the HU professor's patent if Holder ends up getting a later invention date than the HU professors because 102(e) prior art – such as the HU patent - applies to a 103

analysis. Hazeltine. German like sulfur detectors may or may not exist in the prior art, but probably do.

Second, the prior art must be pertinent, which means that the prior art is from the same field of endeavor or it is reasonably pertinent to the particular problem the inventor solved here. Clay. The HU article and the HU patent are both from the same field of detecting eggs. The German like sulfur detector are known to exist in the US, based on Holder's comment in his spec which says that any sulfur detector will do, but again I am making an assumption here.

Element	**Article**	**Patent**	**German Like Sulfur Detector**	Holder's Device
Means for detecting 2000mR	Suggests they exist	Test Strips	Yes – the instrument	The German Device Slightly modified
Indicator	Not Expressly but suggests that 2000 is the key #.	Turing Green	Yes – the display	LED or similar indicator when reached

Consequently on step 2 of the Graham analysis there are some differences between the prior art and Holder's patent, but they are minimal. The HU patent could be after Holder's conception, but Holder's patent is obvious even without the HU patent. The German like sulfur detector which is presumed to be in the US provides the means for detecting 2000mR and the

article indicates that 2000mR is the key number. After that the only difference between using the German like sulfur detector after reading the article is adding a specific uinique indication when 2000mR is reached. This is a technically trivial difference and would have been obvious to a PHOSITA of instrumentation. Adding the LED in claim 2 would have also been obvious. No secondary factors would help Holder. Holder, would have a difficult time arguing that his patent was not obvious and his only real hope is that HU professor's article is not discovered and his date of invention is before the HU patent. If somehow PHOSITA's in the US are totally unaware of sulfur detectors, then an argument could be made against obviousness.

Question 3:

Memo to Infringer

I. Infringement

Infringement occurs where some one makes, uses … a patented invention in US without authority. 271(a).

A. Infringement

Literal infringement is found if every element in the claim is found in the accused device. Larami. Claim 2 is clearly not infringed because the dogs have no LED. The elements in Holder's claim 1 are (1) the means for detecting 2000mR/hr of sulfur and an indicator that such a level has been reached. Holder may argue that Egg Dogs (ED) infringes claim 1 because the trained dogs are a means of detecting 2000mR/hr of sulfur and the dogs are the indicator.

ED's response to this should be that Holder's claim 1 uses a means plus function claim. A means plus function claim is construed only to cover the disclosed structure in the spec. Holder would then argue that the a means plus claim is construed to cover the disclosed structure in the spec **and its equivalents**. Holder would then claim that while the electronic sulfur detector is not the same as the dog, they are equivalent. ED would argue that using a dog is in no way equivalent to using an electronic sulfur detector.

B. Doctrine of Equivalents

There is some debate in the courts (as noted in class) on whether a means plus function claim is entitled to a doctrine of equivalents analysis after equivalents to those means in the spec are initially allowed in the literal infringement analysis. This would result in giving the patentee a

broader coverage for his claims. Holder would likely argue that he is entitled to this second equivalent analysis and that if it used the dogs become equivalent to the electronic detector.

Infringement occurs under the doctrine of equivalents if the accused device contains elements that are identical or equivalent to each claimed element. Warner Jenkinson. The accused device must perform substantially the same function in substantially the same way to achieve the substantially same result. Graver Tank; Winans. ED would respond to Holder's second equivalence analysis argument by saying that even if the dogs are accomplishing the same function(smelling sulfur) and accomplishing the same result(finding eggs), there is no way that anyone can agree that using an electronic detector is substantially the way as using a dog's nose to detect sulfur.

If these arguments failed, then ED could try the reverse doctrine of equivalents, which holds that even if something literally infringes the language of a claim, if it is not even equivalent to the substance of the invention, then it does not infringe. Scripps. There is some debate on whether the reverse doctrine still applies in courts though.

II. Defenses

A. Patent or Claim Invalidity

See Question 1 above for discussion of possible arguments for invalidity of patent or certain claims.

A. Prosecution History Estoppel

Prosecution history estoppel prevents the patentee from regaining through litigation, the subject matter that was relinquished during prosecution. Festo. It appears that Holder's patent

was granted with no rejections or amendments, so there is not going to be any prosecution history available for ED to limit Holder's infringement claims.

B. **Inequitable Conduct**

ED may be able to drop an atomic bomb of inequitable conduct on Holder though. Inequitable conduct is a complete defense to patent infringement and makes all of the patentee's claims invalid forever. Therasense. Therasense recently revised the rules for proving inequitable conduct. **Intent and materiality** are still required.

First, inequitable conduct now requires that the infringer prove that the patentee acted with specific intent to deceive the PTO. In the case of a nondisclosure, this requires that the accused infringer prove that the applicant made a deliberate decision to withhold a known material reference. Therasense. Even though this may be Holder's 1st patent and he filed it himself there could easily have been circumstances where he became aware of the duty to disclose. Although there were no amendments there may still be some communications from the PTO on emails or letters that specifically asked Holder to submit any disclosures that he knew might be material. If this can be proved or he had a patent attorney who made him aware of the obligation to disclose, then this may be enough to find deliberate intent not to disclose. However, if Holder was completely unaware of the duty to disclose which is quite possible, then there would not be a deliberate decision to withhold a known material reference.

Second, a nondisclosure is material only if the patent would not have issued, but for the nondisclosure. Therasense. As discussed, above in problem 2 if the HU article was available as prior art, then Holder's would have been rejected for obviousness and may have been anticipated if some inherent limitation arguments were used. Thus, Holder's patent would not have issued

and but for materiality is established. If but-for materiality were somehow not established, but Holder knew of the duty to disclose, then ED could argue that Holder's acts fall into the egregious exception. The Therasense court stated that in the absence of but-for materiality, inequitable conduct could still be shown if the patentee engaged in egregious activity.

Despite all this, Holder may not simply hand over the fact that he had read the article, which makes enforcement of inequitable conduct difficult and why the punishment needs to remain severe.

Question 4:

AIA

If Holder filed the patent application around 2 weeks later, then there would be several differences under the AIA. First, the HU professors would be 1st to invent if both inventions were considered the same invention. This is because the HU professors filed 1st. Under the AIA there would not be any interference proceeding, so even if Holder was 1st to conceive, it would be irrelevant. Thus, the interference in question 1 would never occur.

Second, in question 2 above it was argued that the German sulfur detector could have been read to have expressly or inherently contained all of the limitations of Holder's claim 1. It was unclear from the facts whether similar detectors were available in the US because Holder mentioned that any sulfur would do. If the facts were actually such that the German sulfur detector was the only one of its kind and was only available in Germany, then there would be a different result under the AIA. Under, the AIA requirement in 102 for inventions to be on sale in the US goes away and the new 102 allows for inventions outside the US to be used for a 102 rejection.

There is also a change to the obviousness analysis although it would not likely have any effect. In question 2, it was found that the Holder invention would have been obvious even if the HU patent was not allowed as prior art. In question 2 the analysis was done assuming that Holder could prove a date of invention that was earlier than the HU patent was even conceived to make the analysis simpler. Under the AIA, the obvious analysis is now at the time of the effective filing date. This would guarantee that the HU invention was available as prior art. However, since it was concluded above that the invention would have been obvious even in

absence of the HU patent, a conclusion for obviousness would be reached under the AIA rules as well.

Filing 2 weeks later would also make the HU article available as a statutory bar for being published more than 1 year before the filing of Holder's patent. However, since the AIA looks at time of filing instead of time of invention, this change has no effect.