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**Q1**

Holder's patent will be challenged under **utility**. Operable utility asks whether a PHOSITA would believe it is inherently unbelievable that the invention works for its stated purpose. Claim 1 will be challenged as inoperable. It will be argued that an electric towel that causes the user to be shocked does not in fact work for its stated purpose. Holder should respond that the towel of Claim 1 still works for its intended purpose—it still allows the user to be warm while absorbing water, despite any side effects. Claim 2 won't be challenged as inoperable, because it adds the element of being resistant to shocks.

No real arguments can be made against the patent regarding beneficial or practical utility. Even if the towel of claim 1 doesn't work perfectly, it still has some beneficial uses (use it while not plugged in). Gun cases. No real challenge can be brought under practical utility—real world benefit is significant and presently available to the public. It has a specific, real-world purpose (“stay warm while absorbing water”).

**Enablement** asks whether the specification has enabled the PHOSITA to make and use the invention to the entire scope of the claims without undue experimentation. While claim 1 may have problems under operable utility, here it likely does fine under enablement. Here, the claimed invention is a predictable, old technology, and the specification gives a great working example/recipe for how to make it by referencing electric blankets, standard 110V plugs, etc. The disclosure is not very vague and any PHOSITA conversant with old electric blanket technology would immediately see that Claim 1 is just an electric blanket (as described) with absorbent material.

A weak challenge may be made to the “absorbent” fabric and the “electric wire.” It may be argued that, like the Incandescent Lamp case, Holder is trying to in effect claim a “genus” (of absorbent fabric and electric wire, respectively), while there are in actuality many “species” within these genera that would not be operable. Too many inoperable species within a genus make a claim lack enablement. Incandescent Lamp. It may be argued that some absorbant fabrics will be too thick or too thin to enable an operable invention and that there are numerous gauges of wire that would not allow for adequate heating of the towel. Holder can argue that whatever uncertainty lies in selecting a sufficient material or wire, it would not cause the PHOSITA undue experimentation. This is a simple, old, predictable art; any PHOSITA experimentation would not be undue, due to the simplicity of this technology. The specification’s description of electrical design regarding overheating would also be helpful in selecting the right wire.

Similar enablement arguments about what kind of electrical source would also be quashed based on similar reasoning; it is predictable, old electrical technology and a PHOSITA would not need undue experimentation especially given the references to 110V plugs and standard outlets working as helpful examples.

Claim 2 incorporates all of Claim1, but has bigger problems with enablement. The specification contains no guidance about what a shock resistant wire/fabric combination is. Enablement is part of the patent “bargain” and a challenger will argue that Holder can’t withhold all information that would help enable a shock resistant wire/fabric combination. Holder here can only argue while he provided no examples/guidance, the relatively simple nature of the invention and predictability of the art mean that a PHOSITA could determine a working combination without undue experimentation. Holder should argue that electrical

engineer/electrician PHOSITAs deal with all kinds of “all weather/outdoor/shock resistivity” products that are used in wet conditions and that a PHOSITA easily be able to determine a host of shock resistant combinations. Holder should assert the patent’s pioneer status and argue that the newness of his invention means that he should be entitled to a broad claim and didn’t want his claims to be narrowed by any listed embodiments that may have helped the simple enablement.

**Written description** looks at whether the inventor was in possession of the invention and whether it appears that he had actually invented the claimed invention. Written description is critical when amendments to claims are made; here, Holder amended his claim to add “absorbent” fabric. No written description argument can be made regarding this amendment because the specification clearly references absorbent fabric.

The strongest written description argument-even if Holder’s specification is held as enabling the shock resistant combination, the specification provides no indication that Holder actually was in possession of such a combination himself. They will argue that this is a clear case of Regents of CA v Eli Lilly and GD Searle where Holder is saying, “I haven’t found a combination yet, but I think a PHOSITA would be able to do so.”

**Definiteness** looks at whether a PHOSITA would be able to understand what is claimed when read in light of the specification; the Fed Circuit has recently said that claims should not be held indefinite unless they are insolubly ambiguous (can’t be construed in light of the specification, even with difficulty). The challenger may bring a weak “antecedent basis” challenge-claim 2 refers to a “such wire/fabric combination,” but such a “combination” is not an actual element that was included in the preceding parts of the claim. Like the Zinc Anode battery case, this is a weak argument; especially in light of the insolubly ambiguous standard

now used for indefiniteness, a PHOSITA would clearly see that the combination refers to the connection of the fabric and wire claimed.

Indefiniteness will also be likely used to challenge Holder's use of the words "sufficient" and "sufficiently shock resistant." Orthokinetics. It may be argued that such words don't give sufficient notice to later parties attempting to design similar products; they are too vague. Holder should argue that these words mean something to a PHOSITA in the electrical design field and that such terms were really as accurate as the subject matter permitted. Holder will argue that many types of electrical sources will work and that a PHOSITA would understand that such a source is sufficient if it produces the right voltage/current combination. Similarly, Holder should argue that an electrical PHOSITA would understand that "sufficiently" shock resistant means shock resistant enough such that the user wouldn't actually feel shocks; it is simply as accurate as the subject matter permitted.

**Best mode** looks at whether the specification sets forth the best mode contemplated by the inventor in carrying out the invention. Chemcast instructs courts to look at whether the inventor had a best mode and if so, whether the best mode was enabled. Best mode appears to be lacking here. There is certainly no explicit reference to a preferred embodiment. Randomex instructs courts that best mode need not be explicitly pointed out. Still, no clues as to what types of absorbent materials or electrical wires Holder used are disclosed. The standard 110V outlet may perhaps be seen as Holder's preferred embodiment of the source. Holder's best argument in response is that he didn't have a best mode for the fabric or electric wire. He can argue that many types of absorbent materials and wires can be adapted to his shock resistant combination and work just as well as all the others, such that he had no preferred embodiment.

The best mode argument against Holder will be difficult regarding Claim 2's "combination." Like in Chemcast-if you have only one embodiment, then that must be your preferred embodiment. The evidence may show that Holder's novel material that was absorbent and shock resistant was in fact his only embodiment. Holder's only argument in response must be that while not explicitly disclosed, there are few types of wire/fabric combinations that would even be feasible here, and thus, his best mode was still enabled because a PHOSITA would realize this and would be able to make and use his preferred embodiment without undue experimentation. The argument would be that there was an implicit Randomex list known in the mind of any PHOSITA in the field and that his best mode was contained within this short list and was in fact enabled.

Holder's patent will be challenged under § 102's **novelty** and **statutory bar provisions**. Traditional electric blankets are 102(a) prior art, as they were known and used prior to Holder's invention date. These will likely be held as not anticipating Holder's patent, because they lack the "absorbent fabric" element of Claim 1/2 and likely also the "shock resistant" element of Claim 2.

GFCI plugs are also potential 102(a) prior art because they were known and used prior to Holder's invention date. However, they lack the fabric/towel elements of Holder's claims.

BTC's own towel work may create 102(g) prior art. Important to this determination is the definition of conception (encompass all limitations of the invention and enabled such that PHOSITA could reduce to practice without undue experimentation) and reduction to practice (inventor has practiced an embodiment with all limitations and inventor appreciates invention works for intended purpose). It should be noted at the outset that due to the close and technical

nature of this priority battle, both parties will need corroboration to prove inventive dates.

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Holder's earliest possible conception date is Jan 1, 2000, which precedes what appears to be BTC's earliest possible conception date (Jan 2, 2000). It's not clear whether Holder's idea encompassed all limitations of his invention; certainly, while Holder himself could not reduce to practice (RTP) for some time, he could argue that his idea encompassed all elements and that a PHOSITA would be enabled to RTP. As noted above, corroboration will be key.

Even if it assumed that Holder conceived of the idea on this day (and first), the next question regards his diligence in reducing the invention to practice. Diligence requires substantially continuing activity from the period just prior to the conception of the second conceiver and ends with the inventor's own RTP. Assuming BTC's conception was Jan 2, the facts indicate that Holder worked diligently from Jan 1, 2000, to Jan 8, 2000, when Holder made the "standard" electric towel (without shock resistant-ness). If this was Holder's RTP, then Holder would be diligent in bringing Claim 1's invention to practice. However, the invention of claim 2 was not reduced to practice as of this date because the embodiment did not include the shock resistant combination; it was also not reduced to practice because Holder's continuing work thereafter shows he knew that it didn't work for its intended purpose.

As a side-note, all of Holder's pre-Jan 10, 2000, work appears to be non-public use, so he did not create any 102(b) statutory bar for himself. None of BTC's pre-Jan 10 work appears to be public either. Its Jan 9 website-posting is discussed specifically below.

Holder's continuing work between Jan 8, 2000, and Dec 20, 2000, are where his diligence problems likely arise for claim 2. The facts indicate he worked "off and on;" it will be

challenged whether Holder used steady, industrious efforts and substantially continuing activity during this time. Even small gaps of time require a good excuse under diligence analysis.

Holder's best chance of winning the 102(g) fight will be to argue he conceived on Jan 1, 2000, and that he was diligent in finally reducing to practice the claim 2 invention on Dec 20, 2000. It appears that Holder loses based on RTP priority, as shown below.

BTC's Jan 7, 2000, wire/terry cloth towel appears to be a reduction to practice containing all elements of Holder's Claim 1. Holder's work on Jan 8 appears to be a reduction to practice of his Claim 1 invention. Like any other 102 provision, § 102(g) requires a competing invention to have all elements of the patentee's claim, and BTC's Jan 7 embodiment seems to meet this as it has absorbent fabric (terry cloth), wire, electrical source. Unless Holder can win on the conception/diligence argument, BTC's Jan 7 work likely knocks out Holder's Jan 8 RTP regarding Claim 1-it appears to be anticipatory 102(g) prior art.

Though the reduction to practice date of BTC's GFCI towel is not explicitly given, it appears to be pre-date Holder's Dec 20, 2000, RTP using his new material because by June 30, 2000, BTC was shipping the GFCI towel to customers. Holder's Dec 20, 2000, reduction to practice using the shock resistant material appears to be his reduction to practice date for his Claim 2 invention. Despite the fact that BTC reduced to practice its GFCI towel prior to Holder's Dec 20 shock resistant towel, it is not clear that this should be anticipatory 102(g) prior art. Holder's towel accomplishes its purpose using a special material, while BTC's towel uses GFCI technology. "What anticipates if before, infringes later" (literal only) – is relevant here. Thus, the infringement analysis is included below and will effectively answer the 102(g) question raised here. If it does not infringe literally (and thus not anticipate), it will still be relevant regarding obviousness.

Because Holder filed on Jan 10, 2001, his 102(b) critical date for statutory bars is Jan 10, 2000. BTC may assert that its Jan 9, 2000, website posting constituted a 102(b) “on sale” bar. However, on sale bars require – 1) a commercial offer for sale and 2) invention ready for patenting. Holder can argue that this is clearly just marketing; as shown by the posting, it was not actually available as of the Jan 9 posting and no one could actually accept the non-existent offer at that time. The fake towel (using lamp plug, not the GFCI plug) picture indicates it was not reduced-to-practice yet, which may show it was not ready for patenting. BTC’s later June 30, 2000, sales are clearly after the 102(b) critical date and not an “on sale” SB.

The German patent may also be § 102 prior art. The June 1, 1999, German patent application may be 102(e) prior art as of that German filing, if it can be proved that the German patent was in the English language; this isn’t clear in the facts.

Obviously, the Dec 1, 2001, publication of the patent application and the German 2003 patent issuance are irrelevant under 102 analysis. They both definitely occurred after Holder’s invention date and after his 102(b) critical date. Less clear is whether the June 1, 2000, US filing is applicable under 102(e) and whether the Dec 1, 2000, German patent publication is applicable as a 102(a) publication reference. Both of these sections require their references to be around prior to the invention date. In this case, this depends on when the “invention” date actually was. Clearly, it can be no later than Dec 20, 2000, when Holder reduced to practice with the absorbent material. The preceding analysis shows that the invention date could be as early as Jan 1, 2000. Thus, Holder must prove his conception date to be prior to June 1, 2000, or else the US application filing will be 102(e) prior art.

If Holder can’t prove conception prior to June 1, 2000, or the June 1, 1999, German filing was in English and thus 102(e) prior art as of that date, the question is whether the reference had

all elements and was enabling. Anticipation requires only enabling one to make (not use), so the fact that the application spoke of no uses does not mean it is not anticipatory. The details given don't indicate whether the fabric in the application actually included a wire running through it and whether there was a source connected or whether it just disclosed an absorbent material that could theoretically be useable for such applications. Indeed, if all elements are present (wire, source) it appears that it would be anticipatory reference.

Assuming that none of the 102 prior art discussed above is held as anticipatory, Holder still needs to deal with a § 103 **obviousness** challenge. The first step in determining obviousness under Graham is to identify the pertinent prior art. Here possible prior art is:

Electric blankets-102(a)

GFCI plugs-102(a)

BTC towel-102(g)

German app-102(e) or (a)

Holder is presumed to know of all of this prior art, Winslow, but only pertinent, analogous prior art is considered under § 103. Clay. Likely all of this prior art is within Holder's "field" of towel-making. He may try to argue that GFCI plugs are not in his pertinent field, but under Clay, GFCI technology is likely prior art because it deals logically with Holder's invention and should have been within the hypothetical inventor's scope. Holder was working on an electric towel that would work in wet environments; GFCI's are used often to prevent shocks in wet situations.

Next, under Graham, it appears that when combined, the prior art leaves relatively few differences between the prior art and Holder's claims. The electric blanket discloses the basic technology. The German app discloses a shock resistant material. BTC's towel used GFCI

plugs and accomplished the same purpose as Holder's invention. No element of Holder's patent is not found within the pertinent prior art.

The level of ordinary skill in the pertinent art factor under Graham was discussed in Environmental Designs; this case discussed prior art solutions in the field and sophistication of the technology as relevant factors in determining this ordinary skill. Ordinary skill in the electrical product field is someone educated in as an electrical engineer or electrician; the level of skill may not need to be very high, as basic consumer devices like this blanket are unsophisticated and don't require the training of a Ph.D.

Graham next instructs us to determine the obviousness question. This appears to be a clear case of KSR's "elements work like they normally do and the combination of them produces results that are totally expected." Also under KSR's discussed "teaching/suggestion/method" test, the German patent application noted that the "fabric was absorbent." This appears to be a clear suggestion that one could build on the material's shock resistant-ness and build an (absorbent) electric towel. Assuming BTC's product is a valid prior art for 103, it makes the objective obvious, and it will be argued that Holder merely accomplished the same task by using a substitution of materials (making one think of the old Hotchkiss invention standard).

Holder should argue that even if BTC's product made the goal obvious, his unique adaptation was non-obvious. Unfortunately, whether Holder was truly aware of BTC's work or the German patent prior to his own conception is irrelevant. Though he seems to have independently developed his shock resistant material, he will likely lose an obviousness analysis if the prior art listed above is held as pertinent 103 prior art.

Holder's blanket comes within 101's patentable subject matter. It is the result of human ingenuity and clearly a machine or manufacture under 101. It is not a law of nature, physical phenomena, etc under Chakrabarty.

## Q2

Infringement analysis turns on 1) claim construction and 2) the all elements rule (either expressly or via doctrine of equivalents (DOE)). BTC's towel likely infringes Claim 1-it has an absorbent material (terry cloth), uses an electric wire, and works by connecting it to an electrical source. The pre-amble "electric towel" does not appear to be necessary to give meaning to the claim, but even if it was construed as an element of the claim, BTC's "towel" clearly meets this element as well. As stated above, however, BTC will argue Holder's claim 1 is an inoperable invention and may likely win.

Infringement of claim 2 is less certain and will require claim construction to determine whether BTC's GFCI technology infringes Holder's stated "wire/fabric combination" element. BTC will want to first argue that there is no literal infringement – Holder accomplished the shock resistant goal by altering the material, and BTC accomplished the goal by using GFCI plug technology. Effectively, BTC will argue, under the all elements rule, Holder claimed A/B/C/D and BTC's invention embodied A/B/C/E. BTC didn't have a shock-resistant combination within its fabric/wires but rather a whole new element (the plug).

BTC can argue that Holder failed to be his own lexicographer and describe what a "wire/fabric combination" constitutes; BTC will argue that clearly, however, any PHOSITA would not think that these words mean a GFCI plug. A GFCI plug, BTC will argue, would be viewed by a PHOSITA as effectively "downstream" from the actual fabric/wires themselves and

just something placed at the end of the chain, near the outlet. Holder will likely respond that under Wright and other cases, as something of a pioneering patent, the claim should be read broadly and not be construed to meaning only his specific fabric innovation.

BTC will also argue that when looking to the spec to determine the meaning of claim 2, the reference to “connected to a standard 110 volt electric plug” shows that the shock resistant element does not encompass GFCI PLUG technology. Holder will argue that BTC is trying to impermissibly read in limitations from the specification and that the reference to the standard plug was just one embodiment.

Predictably, Holder will argue that if there was no literal infringement, the doctrine of equivalents (DOE) should not allow BTC’s minor changes to get around his patent. Again, the all elements rule may be problematic for Holder; arguably, as detailed above, the GFCI is not a D\* (compared to Holder’s plain ‘D’ element = wire/fabric combination) but rather a whole new element, E, which really has nothing to do with the wire or fabric and thus outside the DOE. Under Winans’s function/way/result test, though the function and result may be the same, the way is drastically different. Holder’s ‘way’ was by developing a special material, and BTC used standard material but a new ‘way’ that was the GFCI plug.

Prosecution history estoppel, a limit to DOE, doesn’t apply here. Holder is not trying to use the DOE against BTC to recapture non-absorbent fabric.

In defending Holder’s infringement action, BTC should assert a defense of inequitable conduct. Holder disclosed no prior art references, which is generally seen as material conduct. Old electric blanket prior art does not appear to be too material because the PTO already knew about electric blankets (shown by the amendment). However, if BTC can assert that Holder knew about the German application, which was published in Germany prior to Holder’s patent

filing date, this could be important. The reference disclosing a shock-resistant material would be highly material to obviousness analysis because arguably Holder's key new contribution was his fabric innovation. It is also non-cumulative. Because of its high materiality, BTC would need to show only minimal intent to deceive.

### Q3

The Ebay case instructs us that permanent injunctions are no longer to be granted on an automatic basis. Rather, injunctions should be given only after consideration of traditional equitable principles. The four factors that a patentee must show are detailed in Ebay.

Though not all NPE's will fail the "irreparable harm" factor (ie university researchers), here, Holder is an NPE and this factor works against him. He does not have a facility for marketing, indicating he doesn't have the capability to actually sell many of these and thus hasn't suffered irreparable harm. Holder may be harmed if an injunction is not granted because he will have an even tougher time trying to license his patent; still, his inability to license before BTC's product may mean his licensing attempts would likely fail either way. It appears that especially in light of his inability to mass produce or license his invention, monetary damages would be more than adequate to compensate him. Looking at  $\pi/\Delta$ 's balance of hardships, it would appear to hurt BTC much more because they have obviously spent money setting up manufacturing facilities/processes in order to make the large sales that they have. Furthermore, the public interest is likely not served by enjoining BTC; Holder does not have the capabilities to manufacture the towels and he can't find any licensees – if BTC is enjoined, the public may be deprived of this useful invention. An injunction should not be rewarded; ongoing royalties would work better. Paice v. Toyota.

Under § 284, patentees are entitled to damages adequate to compensate for injuries proximately caused by infringers. Panduit lists 4 factors that the patentee must prove to obtain damages of lost profits. Clearly there is a demand for the patented product; BTC's infringing product made > \$500,000 profits. It also appears that there is an absence of non-infringing substitutes. Electric towels offer special advantages, and traditional towels should not be viewed as acceptable "substitutes." Polaroid case. Based on BTC's large sales, the electric towel market appears to be different from the traditional towel market and likely has a different price range. This also shows that traditional towels are not acceptable non-infringing substitutes. Holder fails on the 3<sup>rd</sup> Panduit element because he has neither manufacturing capability nor even the marketing capability to license his patent in order to exploit the demand. Failing manufacturing or licensing abilities, he will also not be able to adequately prove how much profit he would have made. Lost profits should be denied and a reasonable royalty awarded instead.