Question 1

I. Infringement

This memorandum first addresses patent infringement, which may occur literally (“claim reads on the accused devise exactly”) or via the doctrine of equivalents (accused product features “each limitation of the claim or its equivalent”). DeMarini. The question here is whether IMC’s cowbell infringes on Jangler claim 1 under either standard.

IMC’s cowbell probably does not literally infringe. It has already been established that the IMC cowbell’s sides accord with Jane’s prevailing definition of a “frustrum-like shape.” However, “the IMC cowbell … is formed from a single piece of metal,” while Jane’s patent claims two “integral piece[s],” with the physical embodiment made from “two welded pieces of metal.” A court must consider the American Heritage Dictionary’s definition of “piece” and decide whether the Jangler claim’s two “integral piece[s]” are indiscernible from IMC’s “single piece.” This discrepancy could protect IMC against literal infringement.

More challenging is the question of whether the Jangler and IMC designs are functionally equivalent. Their only conceivable difference is that IMC employs a single-piece design, while Jane’s claim could be interpreted as requiring two separate yet “integral” pieces and, thus, “specifically exclude[d] alternative configurations. SciMed. However, “linguistic framework … is less important than essential inquiry” into equivalence, and a court will likely focus on whether the two designs are “substantially the same” or interchangeable with respect to functionality. Warner-Jenkinson. The stated goal of Jane’s invention is superior durability, which IMC’s cowbell accomplishes using a “substantially” similar design. Id. However, IMC’s embodiment offers greater utility by not only reducing the number of welded seams by one (along the now-shared edge between cap and side), but also “facilitat[ing] the process of folding.” Because IMC has improved upon Jane’s design from both durability and manufacturing standpoints, a court is unlikely to deem the two cowbells as wholly interchangeable under the doctrine of equivalents.

II. Validity

Apart from the issue of potential infringement, questions remain as to the continued validity of Jane’s patent if subjected to review. Jane must consider three risks with respect to invalidation: lack of novelty, a §102(b) statutory bar, and obviousness.

Before addressing these risks, though, it is essential to determine whether this patent is governed by the America Invents Act (AIA). Jane filed her U.S. patent application on March 11, 2013. The AIA is only applicable to patents with an effective filing date on or after March 16, 2013. Therefore, the following analysis presumes a pre-AIA framework.

A. Novelty

The pre-AIA language of §102(a) states that “[a] person shall be entitled to a patent unless … the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent.” In this case, anticipatory prior art might include instances made publicly available by others, §102(a), disclosed as prior art in another U.S. patent application (and later published), §102(e), or claimed as an invention in another U.S. patent application, §102(g)(1), before the relevant date of Jane’s invention. Moreover, a
court will consider “dates of conception and reduction to practice,” as well as the inventor’s “reasonable diligence” in the meantime. §102(g)(2).

Jane’s date of “conception” is likely January 8, 2011, when she had a “a definite and permanent idea of the complete and operative invention.” Townsend. Before 2011, prior art was limited to three-piece, frustrum-style cowbells, which “do not anticipate claim 1.” On March 1, 2011, Jane built the Jangler prototype pursuant to her earlier design. Despite extensive testing, she made no design changes until January 12, 2013, when she documented her success to Bronzely. At worst, this would be the date of “actual” reduction to practice, Cooper (developed embodiment plus confirmed success).

IMC conceived of a similar one-seam metal instrument design on September 13, 2010, when it filed a U.S. patent application for the Dillinger flute. On March 13, 2012, the USPTO published this application. IMC did not conceive of its own cowbell design until June 15, 2013, which occurred after the issuance of Jane’s patent and is, thus, irrelevant.

The only issue is whether IMC’s Dillinger flute sufficiently anticipated Jane’s invention on September 13, 2010 (date of later-published application). Analysis leans heavily in Jane’s favor. She specifically claimed a “bell … in which the base is substantially wider than the top,” which she believed would “withstand repeated, forceful striking.” The Dillinger flute simply does not anticipate this design or its intended results. Moreover, Jane was diligent from her idea’s conception to its actual (January 12, 2013) or essential (March 11, 2011) reduction to practice, while IMC did nothing between filing its flute application and conceiving of its cowbell design. In re Moore.

B. §102(b) Statutory Bar

The statutory bars to patentability detailed in §102(b) are principally concerned with the timeliness of the inventor’s filing. Per §102(b)’s pre-AIA language, an invention may generally be barred if it was “described in a print publication” or “in public use” more than one year prior to application.

i. Printed Publication

Jane’s patent will be statutorily barred if her “invention was patented or described in a printed publication in this or a foreign country … more than one year prior to the date of the application for patent in the United States.” §102(b). In the unlikely event that IMC’s Dillinger flute patent is found to sufficiently anticipated the Jangler, Jane’s patent could be statutorily barred if IMC had “publicly” described the relevant invention in print more than a year before March 11, 2013 (date of Jane’s U.S. patent application).

Two dates are important here: September 13, 2010 (IMC files U.S. patent application for Dillinger flute) and March 13, 2012 (USPTO publishes IMC’s patent application for the Dillinger flute). First, since the USPTO is “forbidden by statute from disclosing to the public … anything contained in the [September 13, 2010] application,” Hazeltine, the mere submission of IMC’s (as-of-yet unissued) U.S. patent application would not amount to a “printed publication,” §102(b). Second, the USPTO’s timely March 13, 2012, publication of the Dillinger flute patent application did not occur “more than one year prior to [March 11, 2013],” id., so Jane’s patent is also protected in that regard. Consequently, Jane should not be concerned about suffering a §102(b) statutory bar on her patent due to any extrinsic patent or printed publication.

ii. Public Use
Jane’s patent is at greater risk of invalidation for the subject invention being “in public use or on sale” in the United States “more than one year prior” to her application. §102(b). “[T]o constitute the public use of an invention, it is not necessary that more than one of the patented articles should be publicly used,” Egbert, so even Jane’s own personal use of the Jangler in a public setting during the relevant timeframe could presumably result in statutory invalidation. However, Jane’s specific actions are still unlikely to result in a statutory bar on the Jangler’s patentability.

First, Jane “brought the Jangler bell to three 2011 practices for the Red Redfish that were held in the basement of another member’s house.” During these practices, she “always kept the Jangler bell with her person, and she was the only person who ever touched or struck the bell.” Moreover, her explicit intent for bringing the bell to these practices was wholly experimental; she hoped to ensure “the bell could withstand … the sort of playing that would occur in a public performance.” Importantly, Jane’s “personal relationship” with her fellow band members (i.e., “close friends”) and the “surrounding circumstances” of her constant “control over the [prototype’s] use” during a closed practice session lend strong support to her argument that this was a decidedly “private” use. Moleculon.

Second, Jane played her bell during a live performance at the Flat Tire on November 15, 2011, more than a year before her U.S. patent application. Jane and the Red Redfish played for “two hours” in front of “about a dozen other people” and received “no compensation” for their efforts. As with the presumably “private” Red Redfish practices, Jane intended to alleviate crucial design concerns “about the potential distinctiveness of her use of the bell in a public performance context.” The inventor was well within her rights to publicly experiment without triggering a statutory bar on her invention’s future patentability. Pfaff. Perhaps more importantly, Jane was not “exploit[ing] [her] discovery competitively,” Metallizing, as she received no financial incentive for her use of the Jangler, and any trifling publicity gained by playing for a small late-night crowd at a Missoula bar would be far outweighed by her considerable experimental interests in the “live” test scenario.

Lastly, it is worth briefly noting that any supposed “public use” of the Jangler within §102(b)’s one-year grace period, including Jane’s August 22, 2012, performance, would not be cause for statutory invalidation of her patent. §102(b).

C. Obviousness

Per the 1952 Patent Act, a patent may be invalidated if “the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art” [PHOSITA]. §103. Applying relevant case law, including the four-factor Graham test and the KSR reason-to-combine analysis, Jane’s patent is at substantial risk of invalidation on grounds of obviousness.

The four Graham factors relevant to a §103 obviousness inquiry are (1) the “scope and content of the prior art,” (2) any “differences between the prior art and the claims,” (3) the “level of ordinary skill in the pertinent art,” and (4) “secondary considerations,” including “commercial success, long felt but unsolved need, failure of others,” Graham, copying, “unexpected results,” or prior art “teaching away” from the invention. Adams. KSR analysis further considers whether a PHOSITA “would have seen a benefit to upgrading” an existing product and additionally “found it obvious” to do so by merging said product with available prior art as disclosed in the patent at issue.

First, if Jane’s “invention” occurred on either January 8, 2011 (conception) or March 1, 2011 (prototype construction), the prior art would be limited to the three-piece cowbells she “used prior to 2011,” which “do not anticipate claim 1.” If, in the alternative, the “invention” occurred when Jane
explicitly disclosed to Bronzely her successful reduction to practice (January 12, 2013), the prior art would be expanded to include IMC’s published U.S. patent application for the Dillinger flute and its single-piece wrapped metal construction. This latter scenario is, however, somewhat unlikely. Pfaff.

Second, Jane’s invention improves on the prior art (pre-2011 cowbell) by “eliminat[ing] the need for two seams,” which will “better withstand repeated, forceful striking.”

Third, the pertinent art is metal instrument design, which could be more narrowly construed as limited to percussion instruments. In either case, a PHOSITA would likely have a reasonable working knowledge of sheet metal characteristics, including how welded seam reduction “commonly serves interests in sturdiness and durability” (as noted in IMC’s patent application). However, Jane could make a modestly weak argument that she relied on her expertise in cowbell-playing or her mechanical engineering background to reach that conclusion, while Dillinger only knew of this characteristic due to extrinsic knowledge as a “metal wind instrument” designer.

Fourth, there is probably a very small market for cowbells in general, suggesting that any prior failure to improve its design was simply the result of commercial indifference, not a lack of ingenuity in the field. There were no documented failures to previously improve the cowbell’s longevity, and the Jangler’s characteristics appear quite predictable as a matter of material science. Jane has shown no commercialization of her patent, and IMC’s alleged copying alone is unlikely to convince any court of a fervent market demand.

Finally, evaluating these factors under KSR, a court will probably invalidate Jane’s patent as obvious. Even an “ordinary mechanic,” Hotchkiss, tasked with improving the longevity of a metal device subject to repeated blows would have surely “seen a benefit” in seam reduction as illustrated by the Jangler design. KSR. The fledgling cowbell industry simply lacked financial incentive to make the “obvious” upgrade. Id.

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