

**ANALYSIS UNDER U.S LAW OF SOFTIC C HYPOTHETICALS**

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## **ANALYSIS UNDER U.S. LAW OF SOFTIC C HYPOTHETICALS**

### **C1. Jurisdiction of U.S. Court To Rule on the Validity of a non-U.S. Patent**

#### ***Hypothetical Summary***

Referring to the hypothetical for **Section C1**, X Corporation (a country A corporation) has parallel patents in country A and country B. Y, also a corporation in country A, operates infringing systems both in country A and in country B.

***Question 1. Can X file an infringement action against Y in a U.S. court based on its U.S. patent and country B patent?***

Looking first at the simple case of X pursuing Y in a U.S. court based on the U.S. patent, the answer is “yes”.

Under U.S. law, a party must show that a court has *jurisdiction* to hear the case and that *venue* is proper. Jurisdiction reflects a court's power and authority to consider a case. Venue pertains more to the geographical reasonableness of bringing the case against a defendant in a particular court .

Jurisdiction encompasses a number of different inquiries. In the U.S., judicial power is shared between the federal government and the states. For some matters, a federal court is the appropriate and sometimes exclusive forum. In other matters, the state court is the proper forum. Pursuant to statutory law, the federal courts are authorized to hear cases relating to *federal questions* and to hear high-value cases that involve either citizens from different states or citizens from different countries provided that one of the parties is from the U.S. The rationale for “*federal question*” jurisdiction is that some laws should be applied and should develop consistently across the country. For example, to help ensure effective commerce between the states, federal laws (and regulations) need to be in place. Similarly, where patents represent protection that should be respected throughout the country, it is important that uniform federal law apply.<sup>2</sup> The rationale for federal courts resolving disputes between parties of *diverse citizenship* is to help ensure that neither party should have an unfair advantage in a friendly local court. Whether the case qualifies based on its issues or diversity of citizenship is referred to as “subject matter” jurisdiction.

The U.S. law provides that federal courts have “original jurisdiction over any civil action arising under any Act of Congress relating to...patent laws...” (28 USC Code 1338) In the current case of a patent owner pursuing a U.S. infringer of a U.S. patent, a U.S. federal court would clearly have "subject matter" jurisdiction.

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<sup>2</sup>Uniformity and consistency of patent law was considered so important that in 1982, a single federal court, the Court of Appeals for the Federal Circuit, was formed to be the sole appeals court for matters arising under the patent laws. (Federal Courts Improvement Act) Prior to that time, patent appeals were heard by the multiple federal courts of appeals throughout the United States which often led to divergent precedents.

A second jurisdictional question relates to “personal jurisdiction.” Would it be fair for the court to entertain an action against the defendant on the alleged grounds? Does the defendant have sufficient (or at least some minimal threshold) connection to the court’s “territory” so that it would not be unfairly surprised by being subjected to an action in that forum? Also, can the court “serve process” on the defendant, so that it knows it is facing a lawsuit? In the case of an accused infringer incorporated in the U.S. and allegedly infringing in the U.S., the defendant infringer can receive effective notice of the suit and should not be unreasonably surprised by an action in a U.S. court.

In addressing “venue”, the law considers which court(s) with jurisdiction should be authorized to hear the case based on “geographical considerations”. This feature of the law is aimed at providing some fairness to a defendant by preventing the patent owner from selecting a court that favors him on the law<sup>3</sup> and/or makes the case overly inconvenient for the defendant. By filing suit in the district in which the infringer Y is regularly doing business or causing infringement of the U.S. patent, X should be able to satisfy the jurisdictional and venue requirements without difficulty.

The more challenging hypothetical situation concerns the enforcement of the country B patent in a U.S. court. In other words, can X extend its cause of action against Y in the U.S. to include the

infringement of the B patent? The answer in this case is a qualified “yes”. Although there seem to be a number of U.S. laws that could be relied on, the court may or may not find them applicable.

In 1990, the U.S. enacted 28 USCode 1367 which codifies the notion of “supplemental jurisdiction”. Section 1367 provides that:

(a) Except as provided in subsections (b) and (c) or as expressly provided otherwise by Federal statute, in any civil action of which the district courts have original jurisdiction, the district courts shall have supplemental jurisdiction over all other claims that are so related to claims in the action within such original jurisdiction that they form part of the same case or controversy under Article III of the United States Constitution. Such supplemental jurisdiction shall include claims that involve the joinder or intervention of additional parties.

(b) In any civil action of which the district courts have original jurisdiction founded solely on section 1332 of this title, the district courts shall not have supplemental jurisdiction under subsection (a) over claims by plaintiffs against persons made parties under Rule 14, 19, 20, or 24 of the Federal Rules of Civil Procedure, or over claims by persons proposed to be joined as plaintiffs under Rule 19 of such rules, or seeking to intervene as plaintiffs under Rule 24 of such rules, when exercising supplemental jurisdiction over such claims would be inconsistent with the jurisdictional requirements of section 1332.<sup>4</sup>

(c) The district courts may decline to exercise supplemental jurisdiction over a claim under subsection (a) if--

- (1) the claim raises a novel or complex issue of State law,
- (2) the claim substantially predominates over the claim or claims over which the district court has original jurisdiction,
- (3) the district court has dismissed all claims over which it has original jurisdiction, or
- (4) in exceptional circumstances, there are other compelling reasons for declining jurisdiction.

(d) The period of limitations for any claim asserted under subsection (a), and for any other claim in the same action that is voluntarily dismissed at the same time as or after the dismissal of the claim under subsection (a), shall be tolled while the claim is pending and

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<sup>3</sup> Since the Court of Appeals for the Federal Circuit was formed in 1982 to hear all patent appeals, the law has become more uniform so that a patent owner “shopping” for a favorable forum has become less of a concern.

<sup>4</sup> This provision limits supplemental jurisdiction with respect to certain parties in a diversity of jurisdiction action.

for a period of 30 days after it is dismissed unless State law provides for a longer tolling period.

(e) As used in this section, the term "State" includes the District of Columbia, the Commonwealth of Puerto Rico, and any territory or possession of the United States.

Hence, a complaint containing separate causes of action for infringement of U.S. and non-U.S. patents can be brought in a federal court where "they form part of the same case or controversy". This notion codifies a principle advanced in the 1967 case of *Ortman v Stanray*<sup>5</sup> in which a federal court separately considered infringement actions based on parallel patents in four countries. While section 1367 typically involves the inclusion of a state law claim along with a federal claim to achieve judicial economy and consistency, the statute is not so restricted -- section 1367 might also be invoked to include a foreign infringement claim with a U.S. claim. The court has some discretion in denying such jurisdiction if, for example, the supplemental claim dominates the federal issue. In a recent case, *Mars Inc v Kabushiki-Kaisha Nippon Conlux*, the Federal Circuit did not affirm "supplemental jurisdiction" in a patent case<sup>6</sup> on the grounds that a U.S. patent recited method claims while a Japanese patent recited only apparatus claims and thus, because the accused "devices" and accused infringing acts differed, were not based on the same "nucleus of fact". The Federal Circuit did not question the *Ortman* case and apparently left open the applicability of "supplemental jurisdiction" under the right set of facts. Nonetheless, at least one commentator, pointing to the *Mars* decision, has observed that "There has not been a uniform acceptance or rejection of the ability of a U.S. court to litigate foreign

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<sup>5</sup>152 USPQ 163 (7th Cir. 1967).

<sup>6</sup>30 USPQ2 1621 (Fed Cir 1994).

patent infringement...<T>he Federal Circuit appears hesitant to assert jurisdiction over patents not issued by the USPTO....”<sup>7</sup>

A legal notion akin to “supplemental jurisdiction” is “pendent jurisdiction”, although its success is less likely in enabling X to extend its suit to the B patent. Under 28 USCode 1338(b), federal courts can consider a state court matter in a federal court action in order to avoid piecemeal litigation. The section provides that federal courts “have original jurisdiction of any civil action asserting a claim of unfair competition when joined with substantial and relate claim under...patent...laws.” The Federal Circuit in the *Mars* case denied pendent jurisdiction where the patent owner sought to bring in the Japanese patent infringement action under the guise of a state unfair competition claim. The court distinguished patent infringement from unfair competition in this context.

Another possible approach in having a federal court consider infringement of the B patent would involve “diversity jurisdiction”. If the amount at stake exceeds \$75,000 (the jurisdictional minimum) and X and Y come from different states in the United States, it may be possible to have a federal court hear an action based on infringement of the B patent.<sup>8</sup> Because the defendant “resides” and operates a business in the U.S., the patent owner should be able to comply with the “personal jurisdiction” and “venue” requirements. Whether a U.S. court will want to get

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<sup>7</sup>“International Patent Prosecution, Litigation, and Enforcement” by Christopher DeCluit, 5 Tulsa J Comp and Intl Law 135 (1997).

<sup>8</sup>See “Jurisdiction and Recognition in Transatlantic Patent Litigation” by Fritz Blumer, 9 Texas IPLJ 329 (2001) which considers this type of scenario but with a foreign defendant.

involved in a non-U.S. infringement of a non-U.S. patent remains to be seen -- especially in view of the "act-of-state" doctrine by which courts traditionally avoid extending their rulings to purely extraterritorial matters.

None of the above, however, would compel the U.S. court to deal with infringement of the country B patent and a court could foreseeably do so. See Hague discussion below.

***Question 2. Can a U.S. Court rule on the Validity of the U.S. Patent? Can the U.S. Court Rule on the Validity of the B Patent?***

As to the first subquestion, a U.S. court is authorized to rule on the validity of a U.S. patent. It has federal question jurisdiction (in that an assertion of patent invalidity is an action arising under an Act of Congress pertaining to patents). With both parties being in the U.S., personal jurisdiction and venue should not obstruct an action in a U.S. federal court.

The second subquestion asks if the U.S. will rule on the validity of a patent granted by another country. The U.S. would likely consider validity a matter of exclusive jurisdiction to the nation granting the patent. The granting nation's sovereignty would dictate that the patent rights it grants for exercise within its borders should be upheld or denied by its own courts. Practically, the ability of a foreign forum to invalidate another country's patent raises a number of questions. Can the foreign forum properly apply the different laws, policies, and precedent of the



granting country? How does the foreign forum enforce its judgments in the granting country, especially if the result in the granting country would differ? At this time, it would seem that the U.S., like other countries, would not decide the fate of another country's patent<sup>9</sup> if that were the sole issue.

The hypothetical question, however, is whether the U.S. court would consider validity in the context of an infringement action. It is unclear how the U.S. courts would address this issue. While there is a consensus among countries that validity is the bailiwick of the granting country, infringement determinations are not viewed with such strictness (as observed above with reference to "supplemental jurisdiction" and below with regard to the pending Hague Convention). With that perspective, courts would likely view the invalidity defense in a foreign infringement action with ambivalence. On the one hand, allowing the validity issue in such cases could provide a simple way to have another country's patent challenged. On the other hand, disallowing validity in such cases would provide the defendant with a short-cut to terminating a foreign infringement claim by merely invoking an invalidity defense.

Some guidance may be gleaned from the U.S. position asserted at the Hague Convention on Jurisdiction and Foreign Judgments. Article 12 of the Draft Hague Convention is directed to "Exclusive Jurisdiction" with respect to patent matters and is embodied in a number of alternatives. In Alternative A, Article 12 paragraph 4 provides that "In proceedings in which

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<sup>9</sup>See "Litigation Beyond the Technological Frontier: Comparative Approaches to Multinational Patent

relief sought is a judgment on the grant, registration, validity, abandonment, revocation, or infringement of a patent...,the courts of the Contracting State of grant or registration shall have *exclusive jurisdiction...*” An Alternative B provides a paragraph 5 which states that “In relation to proceedings which have as their object the infringement of patents..., the courts of the Contracting State ...have *jurisdiction.*” Under this alternative, the courts would have jurisdiction (albeit not exclusive jurisdiction) for infringement.

Regardless of whether Alternatives A and/or B are selected, a number of additional provisions have been proposed. In paragraph 6, it is noted that:

6. Paragraphs 4 and 5 shall not apply where one of the above matters arises as an incidental question in proceedings before a court not having exclusive jurisdiction under those paragraphs. However, the ruling in that matter shall have no binding effect in subsequent proceedings, even if they are between the same parties. A matter arises as an incidental question if the court is not requested to give a judgment on that matter, even if a ruling on it is necessary in arriving at a decision.

The first sentence of Paragraph 6 was due in large part to U.S. urging. The U.S. contingent has argued that validity not be excluded if merely an incidental question. While not determinative as to what the U.S. law is, this position would suggest the U.S. position on what it believes the law should be.

The remainder of Paragraph 6 seems to reflect a compromise by limiting the effect of the foreign ruling to the litigating parties and by avoiding any comity issues (by which one court respects the

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Enforcement” by John Thomas, 27 Law and Policy Intl Business 277 (1996).

decision of another). The last sentence of Paragraph 6 raises an interesting dilemma for a defendant who must raise or evoke the “invalidity” inquiry without requesting a judgment on it. While providing a private remedy seems a workable compromise, one commentator has attacked a potential economic consequence of the proposed practice.<sup>10</sup>

A final point involves enforcement of foreign judgments. The Hague Convention addresses this aspect of transnational litigation by urging the view (generally accepted in the U.S. and Europe) that foreign judgments should be recognized and enforced, subject to a list of exceptions.

Currently, whether a U.S. judgment would be honored by countries in Europe or elsewhere would depend on the national laws. While European Conventions provide for recognition by the various <European> contracting states of the court decisions of each contracting state, such recognition does not extend to non-members like the U.S. Even where recognition is authorized by national law, sundry specific provisions (for example, related to violations of a nation’s public policy, non-compensatory damages, proper jurisdiction in the U.S. for the case, and reciprocity) may affect that recognition.

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<sup>10</sup><sup>10</sup> *Symposium: Intellectual Property Challenges in the Next Century: Article an Alert to the Intellectual Property Bar: The Hague Judgements Convention* by Rochelle Dreyfuss, 2001 U Ill L. Rev. 421 (2001) in which the author notes that if Y successfully invalidated X's patent in a non-granting country, X could not enforce its patent against Y but X could still enforce the patent against all others. This could result in Y enjoying lower costs and the benefits of the patent monopoly, and the public paying the price. NB: Y's benefit may be illusory in that others could challenge the validity as well with similar results and, in any case, the value and vitality of the patent would be in doubt.

From a policy perspective, several authors have commented that “Of the three principal forms of intellectual property, patent rights are most explicitly territorial” although they do not agree that U.S. courts should shy away from applying foreign law to foreign patents in appropriate circumstances.<sup>11</sup> To avoid expense and inconsistent judgments, for example, Chisum (in the cited 1997 comment) favors U.S. courts hearing essentially the same case on parallel patents. The U.S. delegates to the Hague Convention also seem to favor a more robust authority for U.S. courts to consider foreign patent infringement. Nonetheless, we may be seeing a more circumspect Federal Circuit interpreting the law narrowly and leaving policy-making to the other branches of U.S. government.

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<sup>11</sup> *Extraterritorial Application of U.S. Intellectual Property Law: Principal Paper: Territorial IP Rights in an Age of Globalism* by Curtis Bradley, 37 Va J Intl L 505 (1997); See also comment on Bradley paper *Extraterritorial Application of U.S. Intellectual Property Law: Comment: Normative and Empirical Territoriality in IP: Lessons from Patent Law* by Donald Chisum, 37 Va J Intl L 603 (1997).

## **C2. Joint Direct Infringement, Indirect Infringement**

***Question 1: Do the system of S and the system of W infringe X's patent?***

According to the Fig. 1 hypothetical, the S system includes two elements (a', b') and the W system includes a third element (c') which, together, correspond to the elements a, b, c of the claimed system.

### **Direct Infringement under 35 USC 271(a)**

As a starting principle, a party who makes, sells or offers to sell, uses, or imports only part of a claimed invention is *generally* not a direct infringer (indirect infringement will be discussed below). Direct infringement under U.S. 35 U.S.C. § 271(a) ordinarily requires that the invention (that is *all* elements of a claim) be made, used, sold, offered for sale, or imported in the U.S. However, there have been exceptions to that rule. In Paper Converting Machine Co. v. Magna-Graphics Corp.,<sup>12</sup> the defendant sought to avoid infringement by testing parts of the accused device separately, shipping subassemblies to the customer, and advising the customer not to assemble the operable unit until after the patent expired. The court found that the level of testing coupled with the sale and delivery of a "completed" machine (which had no noninfringing use) gave rise to direct infringement.

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<sup>12</sup> 745 F.2d 11 (Fed. Cir. 1984).

Also in FMC Corp. v. Up-Right, Inc.,<sup>13</sup> the court found that "when infringement results from the participation and combined or successive action of several parties, those parties are joint infringers, and are jointly liable." To invoke joint infringement, it seems that each of the parties should at least understand that their separate steps or parts will be combined into a single process or system. Thus, the more connected the parties are to each other and the infringement, the less difficult it should be to prove joint infringement. For example, joint infringement has been found in one case where one party did all but one step of a process and hired another person to do that step; and in a second case where one party used another as an agent or contractor to furnish an obvious missing part of a product.<sup>14</sup> However, in another case, a court "<questioned> whether a method claim can be infringed when two separate entities perform different operations and neither has control of the other's activities".<sup>15</sup> Joint infringement will likely be narrowly applied and will be highly dependent on the facts.

### **Indirect Infringement**

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<sup>13</sup> 816 F.Supp. 1455, 1461 (N.D. Cal. 1993).

<sup>14</sup> See FMC Corp. v. Up-Right, Inc., 816 F.Supp. 1455, 1461 (N.D. Cal. 1993); McDermott v. Omid Int'l, 723 F.Supp. 1228, 1236 (S.D. Ohio 1988), aff'd, 883 F.2d 1026 (Fed. Cir. 1989); Shields v. Halliburton Co., 493 F.Supp. 1376, 1389 (W.D. La. 1980); Crowell v. Baker Oil Tools, 143 F.2d 1003, 1004 (9th Cir. 1944).

<sup>15</sup> Mobil Oil Corp. v. Filtrol Corp., 501 F.2d 282, 291-292 (9th Cir. 1974).

A more substantial basis for alleging infringement by a party providing less than all elements of a claim is “contributory infringement”.<sup>16</sup> 35 USCode 271(c) provides that one who

offers for sale or sells within the U.S. or imports into the U.S. a component of a patented machine, manufacture, composition of matter, or a material or apparatus for use in practice a patented process, constituting a material part of the invention, knowing the same to be specially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.

Based on this section, if one or more "material" parts of the invention are sold or imported by S or W into the U.S. with that party knowing it would be used in an infringing combination of a',b',c' and such parts are not staple articles suitable for substantial noninfringing use, a charge of contributory infringement could apply. If the component is an insignificant part of the claimed combination, the charge would not apply. Similarly, section 271(c) would not apply if c' was a generic personal computer (to be used as a client terminal) because such a component would be a staple article and would have many substantial noninfringing uses. In this case, for example, if c' were a specially developed, dedicated computer that was essential to the combination and that had no substantial noninfringing uses, W might be liable as a contributory infringer if it had knowledge of the resulting infringing combination..

In order for there to be contributory infringement, there must be some direct infringement.

Moreover, there is a knowledge requirement in contributory infringement (which is not required

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<sup>16</sup>Contributory infringement and inducing infringement are referred to as "indirect infringement" in that they depend on some "direct infringement".

for infringement under section 271(a)). That is, S or W must know that the parts it provides are "made or adapted for use in a patent infringement" for there to be contributory infringement..

If S or W connects the three components together in operation, that party could be a direct infringer under 35 USCode 271(a) by which anyone who, "without authorization, makes, uses, offers to sell, or sells any patented invention within the U.S., or imports into the U.S. any patented invention during the term of the patent, infringes the patent." Connecting the elements and operating them in the U.S. would be direct infringements. If a third party combined the elements or operated the system a',b',c' in the U.S., that party could be an infringer and S or W or both could be contributory infringers if the requirements of section 271(c) were satisfied.

***Question 2. Are suppliers a (who provides software for the S system) and b (who provides software for W system) liable?***

Because the hypothetical does not indicate what functions the software provides, the discussion will be generic -- applicable to both suppliers.

U.S. law is fairly well-established that patent protection will not be denied merely because a technological advance is in software rather than hardware form. Moreover, in the case of *State*



*Street Bank v Signature Financial*<sup>17</sup>, the Court of Appeals for the Federal Circuit discarded a prior commonly acknowledged exception to patentability for "business methods". Accordingly, the claim to a,b,c might recite functions performed by the software supplied by a or b or both. For example, the claim might recite the server as "means for sorting inquiries..." or performing another function implemented by the supplied software.

Even if the software only represents a portion of the claim, if the software qualifies under section 271(c), the software suppliers could be charged with contributory infringement.

In addition to contributory infringement, a or b or both could be liable for "actively inducing infringement" under 35 USCode 271(b). Case law has imposed a knowledge requirement -- the inducer must aid or abet (for example, instruct or lead a customer or other party) in a direction that the inducer knows will result infringement. If S and W owned and operated hardware, and a instructed S, and b instructed W, to install and operate the software, knowing that such operation would result in infringement, a and b could each be liable as an infringer (through inducement).

If the claims do not involve or require the software, contributory infringement would not apply because the software is not a "material part of the invention". However, section 271(b) does not

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<sup>17</sup> 47 USPQ2 1596 (Fed Cir 1998)

require that an inducer provide component parts -- providing instructions or directions may be enough.

***Question 3. Is a consumer who sets up and operates W's system at home an infringer?***

If the consumer operates only part of the invention (namely c') and not all of the invention, he/she is likely not an infringer.

However, it will be assumed that the consumer has purchased c' (a home terminal) from W and that c' is connected to a',b' over a network. It is also assumed that, when the consumer operates the terminal, he/she makes use of X's patented technology. If the consumer in the U.S. is *using* the patented combination located in the U.S., the consumer is a direct infringer under 35 USCode 271(a). Even if the consumer has no knowledge of the patent, the consumer can still be an infringer. Section 271(a) does not have a "knowledge" requirement as do sections 271(b) and 271(c). Whether or not an infringement under 271(a) is innocent or willful may affect the remedies, but does not affect liability.

A more difficult question arises when portions of the combination accessed by the consumer are located outside the U.S. At the SOFTIC SYMPOSIUM 1999, Judge Rader was asked, in the context of the *Priceline.com v Microsoft* dispute, if there could be an infringing use if Microsoft moved its server to Canada from the United States. Judge Rader replied that,

as compelling as <Mr. Boehm's> logic is, our law still requires that infringement take place within the borders of the United States...Thus, under the law, Microsoft could avoid infringement by simply moving its server to Canada. And the law at this point would have to acknowledge that that is not an infringement because the activity took place in Canada...No it is not a particularly good result because it allows easy circumvention of the law. This suggests our Congress should reconsider the principle of territoriality for infringement purposes and change the law to ensure that it could not be so easily circumvented. A judge today, however, would be compelled to enforce the law as it is written with its territorial limitations.

Depending on the facts, W might also be liable through inducement or contributory infringement.

***Question 4. Can X sue S and W (both U.S. corporations) in the U.S. on a U.S. patent reciting a,b,c where the S system of a', b' is in the U.S. but the W system c' is in another country?***

Under "traditional" patent principles, the straightforward answer would be "no". However, in 1984, the U.S. added Section 271(f) to our law which may provide some creative approaches.

Years ago, in *Deepsouth Packing Co. v Latram Corp*<sup>18</sup>, a company sent unpatented components outside the U.S. to be assembled into the patented combination. The U.S. Supreme Court found that there was no infringement. In response to that case, 35 USC Code 271(f) was enacted. Section 271(f)(1) is aimed at one who

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<sup>18</sup> 173 USPQ 769 (U.S. 1972)

supplies (or causes to be supplied) in or from the U.S. all or a substantial portion of the components of a patented invention, where such components are uncombined..., in such manner as to actively induce the combination of such components outside the U.S. in a manner that would infringe the patent if such combination were made in the U.S.

In the present hypothetical, the facts must be reviewed to determine if S (i) is supplying a substantial portion of the components of a,b,c and (ii) is inducing someone (say, a consumer) to combine the components into an "infringing" combination. Because the statute was prompted by the *Deepsouth* case, it is directed mainly at physical combinations. A number of issues may arise in applying the section to a more "virtual" combination. For example, a court might question whether S is "supplying" a',b' because S never transfers ownership or possession of the elements to another to be combined. A number of other questions are considered by Witek in a 1998 article<sup>19</sup> on damages relating to internet-type inventions. Witek considers the "time serial copy" scenario in which a claim requires 5 pieces (A through E) but, at no time, do all the pieces reside in memory at one time. The author suggests that there may be direct infringement under section 271(f). Another example raised in the article involves "partial copying" in which a patented program may have 3 subroutines, each containing different types of information (e.g. instructions, data structures), where different devices copy or store only certain portions of information. The author notes that

the devices which make selective partial copies will probably never make copies which result in direct infringement since selective partial copies must be coupled with other devices in order to use the entire claimed subroutines A, B, C. Thus, the creator of a partial copy is most likely only liable under a contributory infringement theory.

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<sup>19</sup> *Software Patent Infringement on the Internet and on Modern Computer Systems -- Who is Liable for Damages* by Keith Witek, 14 Computer and High Tech L.J. 303 (1998)

The challenge to X in suing W is more difficult than filing action against S. Presumably all of W's acts are outside the U.S. Even if W forms the combination, there is no patent in country B and it is unlikely that a U.S. court would entertain an action against W under section 271(f)(1) where presumably it is not "supplying components in or from the U.S."

Another theory for reaching an infringement having some foreign roots is in section 271(f)(2) by which a party that:

supplies or causes to be supplied any component of a patented invention that is especially made or especially adapted for use in the invention and not a staple article or commodity of commerce suitable for substantial noninfringing use, where such component is uncombined..., knowing that such component is so made and so adapted and intending that such component will be combined outside the U.S. in a manner that would infringe the patent if such combination occurred within the U.S. shall be liable as an infringer.

In this case, the facts must be reviewed to determine if the component is tailored to be used in the invention, that the supplier has knowledge, and that the component is not a staple article. As with section 271(f)(1), there is question as to whether a', b' is being "supplied" and whether section 271(f)(2) was intended to cover such a "combination".

Although the hypothetical is not clear on the point, it would seem that S and W might not be practicing all elements of the invention, but that the consumer in country B may be. It is unlikely that a U.S. court would (or could) act extraterritorially to reach the consumer who is actually making the infringing combination. The consumer would not be making, using, or selling in the U.S. or importing into the U.S. infringing goods. However, S might be liable under either

section 271(f)(1) or 271(f)(2) if a court concludes that S provided a',b' to the consumer knowing that the consumer would create a combination that would infringe a U.S. patent, provided that none of the limitations to the section apply.

It is noted that section 271(g) also involves extraterritorial acts. However, because that section applies to methods and the claims in the hypothetical are directed to apparatus elements, this section is not discussed.

***Question 5. X has the same patent in country A and B. The S system (a',b') is in country A and the W system (c') is in country B. X, S and W are all U.S. corporations. Consumers in country A and B presumably combine the elements to practice the claimed invention. Can X bring an action against S and/or W in a U.S. court based on the country A patent, the "same" patent from country B, or both?***

As noted above in ***Section C1 (Question 1)***, a U.S. court, invoking supplemental jurisdiction, could consider infringements in the U.S. and also outside the U.S. based on the same patent and the same nucleus of facts. As noted earlier, the Federal Circuit did not exercise this jurisdiction in the *Mars* case, thereby not extending U.S. patent law extraterritorially. The direction of the Hague Convention could impact the U.S. court perspective.

The U.S. is a favored jurisdiction because of the broad remedies available for patent infringement and the well-developed body of patent law in the U.S. that helps add certainty to the litigation equation. However, if a U.S. court did exercise jurisdiction over a non-U.S. infringement claim, it would likely apply the foreign law and would likely be reluctant to impose punitive or non-compensatory remedies in such a case.

***Question 6. Can X sue S or W in the U.S. based solely on a country B patent, where there is no U.S. counterpart patent?***

It is likely that the "act-of-state" doctrine would keep a court from exercising such jurisdiction. Supplemental jurisdiction would not apply.