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Untying the Gordian Knot (PTO Style), or a Funny Thing Happened to My Markush Claim



BY WENRONG HUANG, GEORGE C. BEST, AND GERALD F. SWISS

According to legend, the Gordian Knot was a knot tied in a manner where neither end of the cord was exposed. Because the ends of the cord were hidden, the knot was next to impossible for anyone to un-

Wenrong Huang is an associate, and Gerald F. Swiss is a partner in the Chemical, Biotechnology & Pharmaceutical Practice Group at Foley & Lardner, Palo Alto, Calif. George C. Best is a partner in the firm's Intellectual Property Litigation Group. The views expressed in this article are those of the authors and should not be attributed to Foley & Lardner or its clients.

tie. Legend further states that only the future king of Asia could untie the knot. When Alexander the Great came upon the Gordian Knot, he, like others, could not untie it. Rather than leaving in futility, Alexander unsheathed his sword and, in a single dramatic stroke, cut into the knot, exposing its ends and allowing it to be untied.

Over the past few years, some examiners in the Patent and Trademark Office have created the patent equivalent of the Gordian Knot. Patent attorneys have been struggling to untie this "Markush Knot" in a great many applications.

The Markush Knot arises when an examiner improperly subjects a single claim that employs a Markush group to restriction under 35 U.S.C. § 121. Because the PTO does not allow such an improper restriction to be appealed as a matter of right, see 37 C.F.R. § 1.144 (requiring an applicant who disagrees with a restriction re-

quirement to petition the PTO director for relief), attorneys have little ability to undo this practice.

BACKGROUND

A Markush group is a commonly used claim structure in which a single claim element is defined as being selected from a group of possible options. Markush claiming is invoked by reciting an element, wherein the element is “selected from the group consisting of” a definite group of options. *Ex parte Markush*, 1925 CD 126, 340 OG 839 (Comm’r Pat. 1924).

Although Markush claims can be—and are—used in any technical field, they are most common in chemical and biotech cases. In these fields, a single claim can identify a portion of a chemical structure with a label such as “R,” with R defined as a wide variety of different elements or chemical groups.

Because a single claim may have several Markush groups and literally encompass millions of compounds, many examiners dislike claims with Markush groups. Some examiners have responded by issuing restriction requirements that separate different species within a single claim. Typically, the examiner asserts that the single claim encompasses, through creative Markush claiming, multiple distinct inventions.

Many such restriction requirements are not proper. Case law dictates that restriction practice is between claims and not within a single claim. *See, e.g., In re Weber*, 580 F.2d 455, 458 (CCPA 1978).

A practitioner, however, does not have unfettered rights to draft a Markush claim. *In re Harnish*, 631 F.2d 716 (CCPA 1980), imposes an important limitation on Markush practice. In *Harnish*, the court held that a proper Markush group must have unity of invention. The court further held that, a Markush claim that lacks unity should be rejected rather than subjected to a restriction requirement. *Id.* at 721-722.

In the authors’ experience, applicants’ attempts to remind the PTO that restriction of a single claim is not permissible have met with little or no success. Examiners ignore citation of *Harnish* and arguments that it is controlling law.

Attempts to appeal such restriction requirements on the basis that the restriction actually is a rejection based on an improper Markush group have been dismissed. The PTO takes the position that the restriction requirement is not a rejection that is appealable as a matter of right. Petitions challenging such restriction requirements have been denied.

RECENT DEVELOPMENTS

On May 9, the PTO ordered additional briefing in *Ex parte DeGrado*, No. 2010-005832 (B.P.A.I. May 9, 2011). The applicants were ordered to address two specific questions: (1) Whether the applicants could be required to restrict their claims to a single invention, i.e., to select from among the “conservatively estimated” 400 billion species encompassed within a single Markush group; and (2) Whether the claim with that Markush group was in fact a proper “Markush Claim.”

The order also revealed that the panel for this appeal includes Commissioner for Patents Robert L. Stoll—acting in his capacity as a judge on the Board of Patent Appeals and Interferences—and Vice Chief Administrative Patent Judge James T. Moore. One of the issues in

this appeal is expected to be the propriety of imposing a restriction requirement on a single claim containing a Markush group.

Without addressing the merits of *Ex parte DeGrado* directly, the authors will show that the commissioner and the remaining members of the panel have little latitude in addressing this practice. Moreover, absent a complete repudiation of restriction of a single claim based on the Markush group used in that claim by that panel, the PTO will continue to prevent applicants from untying the Markush Knot that the PTO has created.

First, the PTO is obligated to follow decisions of its supervisory court, the U.S. Court of Appeals for the Federal Circuit and its predecessor court, the Court of Customs and Patent Appeals. These supervisory courts have consistently held that a restriction requirement is between (or among) claims and not within a single claim. Cases on point include *Harnish* and *In re Weber*, 580 F.2d 455, 458, 198 USPQ 328, 331-32 (C.C.P.A. 1978).

Second, inventors have the right to claim an invention in the manner that they feel best defines the invention. 35 U.S.C. § 112, ¶ 2; *Weber*, 580 F.2d at 458. Accordingly, restriction of a single claim denies inventors this basic right and is improper.

Third, a proper Markush group must have a common structural feature and/or a common utility. Absent either or both of these requirements, the Markush claim should be properly rejected under a judicially created doctrine of lack of unity of invention.¹ *Harnish*, 631 F.2d at 722. It is important to note that the *Harnish* court stated that a lack of unity of invention is a rejection and not a restriction requirement. *Id.* at 721. This is distinction with importance. As with any rejection, it is appealable whereas a restriction requirement is not.² If the rejection is appealable, then a successful appeal brings with it the opportunity for patent term adjustment under 35 U.S.C. § 154.

In contrast, successfully petitioning a restriction requirement to the director does not provide for any patent term adjustment. Furthermore, as noted above, it is the authors’ experience that such are infrequently, if ever, granted.

An examination of the case law shows that the judicially-created “unity of invention” standard is easily met in most cases. For example, in *Harnish*, the court found a common structural feature in the Markush claim—namely, a coumarin ring. 631 F.2d at 722.

The court further found that there was a common utility in that the compounds claimed within the Markush genus were dyes or dyes that could be further modified to other dyes. Accordingly, the court held that the Markush group was proper as it possessed unity of invention.

Subsequently, the Board of Appeals and Interferences revisited the *Harnish* decision in *Ex parte Hozumi*, 3 USPQ2d 1059 (B.P.A.I. 1984). There, the board expanded the unity of invention concept by stating that

¹ One should note that this judicially created doctrine is quite distinct from that used in international practice and should not be confused therewith.

² According to 37 C.F.R. § 1.144, the practitioner must petition the PTO director if in the practitioner’s mind, the restriction requirement is in error.

the common structural element had to be *essential* to at least one utility of the claimed genus. *Id.* at 1060.

This additional requirement likely is inconsistent with *Harnish* as the common structural element in *Harnish* was a coumarin ring. The application in *Harnish* did not state that the coumarin ring was essential to the claimed utility as a dye. Thus, *Ex parte Hozumi* wrongly expanded the requirements found in *Harnish*.

Regardless, the question remains, however, as to how the panel deciding *Ex parte DeGrado* will apply the precedent of both *In re Weber* and *In re Harnish* to the issues at hand, keeping in mind that the supervisory courts of the PTO have already resolved this problem. If this panel attempts to legitimize restriction requirements based on a Markush group in a single claim inconsistent with the unity of invention standard set forth

in *Harnish*, the Markush Knot will remain tied. Indeed, such a decision will leave an applicant with the only option of filing of a writ of mandamus with the U.S. District Court for the District of Columbia directing the PTO to properly follow precedent.

CONCLUSION

If the panel states that restriction practice of Markush groups is in error and that the precedent of *In re Weber* and *In re Harnish* must be followed, like *Alexander*, the panel will have with one decision untied the Markush Knot. On the other hand, if the panel affirms the abusive practice of some misguided examiners, the practice will likely spread and Federal Circuit intervention will surely be sought.