

enswert, also die Vorteile der Nutzung der geschützten Erfindung für den Lizenznehmer, gerechtfertigt. Hierdurch lässt sich auch in Deutschland erreichen, dass sich die Lizenzanalogie in ihrem Ergebnis von der Ähnlichkeit mit einer Zwangslizenz entfernt. Wie in der italienischen Rechtspraxis anerkannt und in der Gesetzesbegründung der jüngsten Patentrechtsreform in Japan vorgesehen, ist es geboten, gerade auch den Umstand bei der Bemessung eines angemessenen Schadensersatzes zu berücksichtigen, dass der Schützrechtsinhaber in der

Verletzungssituation seiner Möglichkeit beraubt worden ist, der Nutzung des geschützten Erfindung zu widersprechen. Dies lässt sich durch eine Korrektur der Lizenzhöhe in Ansehung des Kooperationswerts leisten. Bei der Anwendung einer solchen Korrektur des Lizenzsatzes ist indes – wie bei der Herausgabe des Verletzergewinns – darauf zu achten, bei der Bemessung des Schadensersatzes nur solche Vorteile des Verletzers zu berücksichtigen, die bei einer wertenden Betrachtung auf der Rechtsverletzung beruhen.

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Patent Infringement by Equivalent Means in Switzerland

German doctrine and case law on patent infringement by equivalent means has heavily influenced Swiss practice, with one important difference. Similar to the UK Supreme Court's approach in *Actavis v. Eli Lilly*, the Swiss Federal Patent Court assesses whether it was obvious to the skilled person that the variant and the replaced feature fulfil the same function from an ex post perspective, i.e., knowing that the feature has been replaced. The contribution explains the Swiss approach to determining a patent's scope of protection and wonders whether it succeeds in striking a balance between fair protection for the patentee and a reasonable degree of certainty for third parties.

I. Introduction

Both in his scientific writings as well as in leading cases where he sat as a judge of the Bundesgerichtshof Prof. Peter Meier-Beck has made important contributions to the determination of the scope of protection of patents. These writings and decisions have had an impact far beyond the borders of Germany. Most readers will be aware of the influence of the German doctrine of infringement by equivalent means shaped by Prof. Meier-Beck on the UK Supreme Court in *Actavis UK Ltd. v. Eli Lilly and Co.*,¹ in which the court famously abandoned the determination of the scope of protection solely by “purposive construction” and accepted a doctrine of infringement by equivalent means for the UK. Probably less well known is the influence of the German doctrine on the Swiss case law. The present contribution seeks to expose the influence of German case law on Swiss practice and addresses some open questions.

II. Equivalency in Switzerland before *Pemetrexed*

The Swiss Federal Patent Court, which unlike the German Federal Patent Court deals with both patent infringement as well as patent validity,² started accepting cases in 2012. It addressed the infringement of a patent by equivalent means for the first time in a decision published in early 2013.³ The patents at issue⁴ concerned methods of manufacturing drosiprenone, an active pharmaceutical ingredient used in contraceptives. The method of one patent required a step of dehydration through addition of

p-toluenesulfonic acid. The allegedly infringing method of manufacturing used a step of dehydration in the presence of pyridine, a basic heterocyclic organic compound.

The Federal Patent Court summarized the existing Swiss case law on infringement by equivalent means as requiring that (i) the replaced feature fulfils the same function as the claimed feature and (ii) the replaced feature was made obvious to the skilled person by the patented teaching.⁵ It then added that a third question was necessary to safeguard the interests of third parties relying on the wording of the granted claims. In view of the primacy of the claims for determining the scope of protection, the two questions insufficiently took into account the binding nature of the claim's wording. A third question was necessary to tie back the scope of protection to the wording of the claim. The third question was the one formulated by the Bundesgerichtshof in the *Schneidmesser I* judgment,⁶ namely whether the skilled person focusing on the essential meaning of the technical teaching protected by the patent would regard the variant as being equivalent to the solution offered by the invention.⁷ Applying the three questions thus formulated, the court found the asserted claim infringed by equivalent means. The Federal Supreme Court dismissed an appeal against the decision.⁸ However, because the decision was rendered in interim injunction proceedings, only violations of constitutional rights could be invoked on appeal and the Supreme Court did not address the test for equivalent infringement.

In a subsequent case involving valves preventing gases from escaping waterless urinals, the Federal Patent Court reformulated the second “drosiprenone” question. In the

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¹ UK Supreme Court, *Actavis v. Eli Lilly* [2017] UKSC 48.

² Art. 26 Act on the Federal Patent Court.

³ Swiss Federal Patent Court [FPC], decision S 2013_001 of 21 March 2013 – *Drosiprenon*.

⁴ EP 1 149 840 B2.

⁵ FPC, decision S 2013_001 of 21 March 2013, cons. 17.2.

⁶ BGH GRUR 2002, 515 – *Schneidmesser I*.

⁷ Translation of the third *Schneidmesser I* question as given in UK Supreme Court, *Actavis v. Eli Lilly* [2017] UKSC 48, at para. 44. The Swiss court verbatim quoted the question as stated by Meier-Beck GRUR 2003, 905 (907).

⁸ Swiss Federal Supreme Court [FSC], decision 4A_160/2013 of 21 August 2013.

“gas value“ case the allegedly infringing embodiment was patented, and it was precisely the disputed variant that led to the novelty and (according to the examiner at the European Patent Office) non-obviousness of the younger invention.⁹ The court held that the relevant question was not whether recognizing that the variant achieves the same function as the claimed feature involved inventive step, but whether it was evident to the skilled person that the variant had the same function as the replaced feature based on the teaching of the patent.¹⁰ In other words, the second question is not assessed *ex ante*, before the variant is known, but rather *ex post*, comparing the variant with the claimed feature and asking whether it is evident that the variant works like the claimed feature.

It is safe to assume that Lord Neuberger, when writing for the UK Supreme Court in *Actavis v. Eli Lilly*, was unaware of the Swiss decision rendered 18 months earlier in a case involving valves for waterless urinals. Still, he came to a similar conclusion, rejecting the German formulation of the second question and instead asking whether

“on being told what the variant does, [would] the notional addressee ... consider it obvious that it achieved substantially the same result in substantially the same way as the invention”.¹¹

Unlike the Swiss second question, Lord Neuberger’s formulation focuses on the *way* the variant works, possibly influenced by the US Supreme Court’s “function-way-result” test.¹²

On appeal from the *Urinalventil* decision, the Swiss Federal Supreme Court endorsed the three questions as formulated by the Patent Court, with an important *caveat* concerning the second question. Regarding the second question, the Federal Supreme Court re-stated the traditional question, namely whether the variant was obvious in view of the teaching of the patent, citing the Bundesgerichtshof’s *Schneidmesser* decision and the contribution by Meier-Beck in GRUR 2003.¹³ It then added, however, that whether a variant was patentable was irrelevant for a finding of infringement by equivalent means. Referring to the provision for a compulsory license for dependent inventions,¹⁴ the Federal Supreme Court pointed out that according to the Patent Act the fact that an embodiment was inventive did not preclude a finding of infringement.¹⁵

III. The *Pemetrexed* decisions of the Federal Patent Court and the Federal Supreme Court

The facts of the *Pemetrexed* case will be familiar to the reader. At the time of filing the patent at issue, antifolates such as pemetrexed were known to have therapeutic effects on cancerous tumours. However, when used for that purpose, antifolates have seriously damaging, sometimes fatal, side-effects. To overcome these side-effects, the original claims as filed suggested the use of an *antifolate* in combination with a methylmalonic acid lowering agent in the manufacture of a medicament useful in lowering the mammalian toxicity associated with an antifolate. During prosecution at the European Patent Office, the examiner raised a first objection regarding clarity and lack of disclosure. The patentee amended the claim(s) to

“use of *pemetrexed* in the manufacture of a medicament [...] wherein said medicament is to be administered in combination with vitamin B12 or a pharmaceutical derivative thereof”.

The examiner objected to the admissibility of the new claim(s), asserting that they introduced new matter contrary to Art. 123(2) EPC 2000 as the application as filed disclosed only the use of pemetrexed *disodium*. The patentee amended the claim(s) a second time to what it referred to as the “preferred embodiment” of the invention, namely the use of pemetrexed *disodium* in the manufacture of a medicament etc. Pemetrexed disodium was the active ingredient in Eli Lilly’s drug ALIMTA® which was used in the examples disclosed in the application as filed.

In Switzerland as in the UK, the respective local companies of the Actavis group filed for declarations of non-infringement for the commercialization of a medicament comprising other salt forms of pemetrexed, namely pemetrexed *dipotassium*, and vitamin B12 for the treatment of (lung) cancer.

In its decision of 9 March 2017 – i. e., before the decision of the UK Supreme Court issued, but after the Bundesgerichtshof had decided the parallel German case – the Swiss Federal Patent Court found for Actavis.¹⁶ It primarily held that claiming protection for an embodiment that was surrendered during prosecution was acting against good faith in contravention of Art. 2(2) Civil Code. The problem was not that the patentee had acted in bad faith during the prosecution of the application. The bad faith manifested itself in enforcing the patent after grant against an embodiment that fell within the literal meaning of the claims as originally filed, but outside the literal meaning of the claims after a deliberate limitation. This constituted acting against one’s own previous conduct (*venire contra factum proprium*) and did not deserve protection. The patentee could have contested the examiner’s objections. It instead chose to amend the claims to have the patent issue faster. Third parties had a reliance interest that the surrender in scope of protection introduced by the claim limitation was irreversible.¹⁷

The reasoning of the Swiss Federal Patent Court is similar to that of the Court of Milan in an interim decision of 12 September 2017 (overturned on appeal) and of the District Court of the Hague in a decision of 19 June 2019 (overturned on appeal).¹⁸ Both the Italian and the Dutch court also found that the limitation to a specific salt form

⁹ The allegedly infringed patent was EP 1 579 133 B1, the patent on the variant EP 2 553 299 B1.

¹⁰ FPC, decision O2014_002 of 25 January 2016 cons. 6.5.2.4 – *Urinalventil I*: “Zu beurteilen ist, ob, wenn die Merkmale ausgetauscht sind, die Gleichwirkung für den Fachmann bei objektiver Betrachtung unter Berücksichtigung der Lehre des Patents offensichtlich ist.“ (emphasis added).

¹¹ UK Supreme Court, *Actavis v. Eli Lilly* [2017] UKSC 48, at para. 62 (emphasis added). Lord Neuberger adds that this approach was consistent with the German approach. That appears wrong. For an attempt at reconciliation see Meier-Beck GRUR 2018, 241 (246).

¹² See U.S. Supreme Court, *Graver Tank & Mfg. Co. v. Linde Air Products Co.* 339 U.S. 605 (1950), for a formulation of the “triple identity” test. The Bundesgerichtshof’s *Schneidmesser* questions may be closer to this approach than generally understood, Meier-Beck GRUR 2018, 241 (245).

¹³ DFT 142 III 772, cons. 6.1 and 6.2.1.

¹⁴ Art. 36 Patent Act.

¹⁵ DFT 142 III 772, cons. 6.4.

¹⁶ FPC, decision O2015_004 of 9 March 2017 – *Pemetrexed I*.

¹⁷ FPC, decision O2015_004 of 9 March 2017, cons. 4.5.3.

¹⁸ Court of Milan, *Eli Lilly & Co, Eli Lilly Italia Spa v. Fresenius Oncology PLC and Fresenius Kabi SpA*, interim decision 54470/2016 of 12 September 2017; Court of Milan, decision 45209/2017 of 15 October 2018; Rechtbank Den Haag, decision C-09/541424/HA ZA 17-1097 of 19 June 2019. On 27 October 2020, the Gerechtshof Den Haag overturned the lower court’s decision and found for the patentee, NL: GHDHA:2020:2052.

of the active ingredient prevented the patentee from claiming protection for another salt form after grant. This reasoning is, however, in stark contrast to that of the Bundesgerichtshof and the UK Supreme Court in the parallel German and UK litigation, the latter judgment having been issued by the time the Swiss Federal Supreme Court decided on 20 October 2017 on the appeal against the Federal Patent Court's judgment. The Federal Supreme Court sided with these latter courts, allowing *Eli Lilly's* appeal and overturning the decision of the first instance court.¹⁹

The court recalled that abuse of right was an emergency stopgap ("Notbehelf") when the application of a specific provision led to extreme injustice ("krasses Unrecht"). Acting against one's previous conduct was not *per se* unworthy of protection. Prior conduct was only binding when it had created a reliance interest for third parties. If one followed the ruling doctrine that the prosecution history was irrelevant for claim construction, it followed that no reliance interest could be created by any conduct of the applicant during prosecution.²⁰

The Federal Supreme Court did not go as far as declaring that the prosecuting history could never be relevant for *claim construction*, because the Patent Court had not construed the claim taking into account the prosecution history – the meaning of "pemetrexed disodium" was clear. The Patent Court had refused to extend the *scope of protection* of the claim to other salt forms of pemetrexed based on Article 2(2) Civil Code. Such a refusal could be warranted, but the reason for the amendment had to be considered. If the applicant merely complied with an examiner's objection to have the patent issue faster, it did not lead to "extreme injustice" to hold the amended claim infringed by equivalent means after grant. After all, the amendment *did* have a limiting effect, as now only equivalents to the limited feature (here: pemetrexed disodium) were to be considered, not equivalents to the feature originally claimed (here: antifolates).²¹

Having found that the prosecution history was no obstacle to extending the scope of protection of the asserted claim to other salt forms of pemetrexed, the Federal Supreme Court turned to the infringement analysis. It restated the three questions from the "Urinalventil" case and then proceeded to apply them to the facts of the *Pemetrexed* case. While the re-statement of the questions in consideration 5.1 adds nothing new, the application to the *Pemetrexed* facts does seem to alter the questions.

Nothing much happens in the application of the first question. The court takes the opportunity to clarify that the variant must fulfil *all* the functions of the claimed feature relevant for the invention, referencing Meier-Beck²². In the case of pemetrexed dipotassium instead of the claimed pemetrexed disodium, this was clearly the case.

It gets more interesting in the application of the second question. The court states that the skilled person must be put in a position to identify the variant by the patented invention; *if the variant was based on inventive activity, it was outside the scope of protection*.²³ This statement is in direct contradiction to the earlier statement in the *Urinalventil* case that it was irrelevant whether the variant was patentable.²⁴ In support of the statement that the variant must not be based on inventive activity, the Federal Supreme Court cites para 62 of the UK Supreme Court's judgment of 12 July 2017 in *Actavis v. Eli Lilly*.

But this is the exact paragraph where Lord Neuberger dismisses the approach of identifying the variant from an *ex ante* perspective and endorses a re-formulation of the second *Improver* question that turns to an *ex post* perspective.

Applying the second question to the facts of the *Pemetrexed* case, the court finds that it was obvious for the skilled person that pemetrexed dipotassium would work in the same way as pemetrexed disodium, notwithstanding the fact that he or she may have to conduct routine experiments to verify the equivalency.²⁵

In applying the third question, the Federal Supreme Court re-words the question substantially. Instead of requiring that the skilled person focusing on the essential meaning of the technical teaching protected by the patent would regard the variant as being equivalent to the solution offered by the invention, the third question is phrased as requiring that the skilled person, when reading the patent, concludes that the patentee – for whatever reasons – formulated the claim so narrowly that it surrendered protection for an equally effective and obvious variant.²⁶ This is, at least in form, closer to the UK Supreme Court's formulation of the third protocol question than the Bundesgerichtshof's third *Schneidmesser* question. The difference in substance is probably rather small.²⁷

Applying the thus formulated question to the facts of the case, the Federal Supreme Court states that the mere fact that a claim was amended during prosecution does not warrant concluding that the patentee surrendered protection for equivalent variants of the limited feature. Closely echoing the Bundesgerichtshof's judgment in the parallel case, the court emphasized that the *reason* why the claim was amended was decisive. Only if the amendment was introduced to distinguish the subject matter of the invention from the prior art could it be considered as surrendering protection for equivalents, but not if the claims were amended to comply with "formal" objections, among which the court evidently counts the prohibition to amend the application in such a way that it contains subject-matter which extends beyond the content of the application as filed (Art. 123[2] EPC 2000).²⁸

Citing the Bundesgerichtshof's *Pemetrexed* judgment, the Federal Supreme Court adds that the facts also fail to support the conclusion that the patentee forfeit protection for other salt forms of pemetrexed by choosing to only protect parts of the disclosure of the invention ("Auswahlentscheidung"). Such a choice could only be assumed if the patent disclosed at least two *specific* embodiments of the invention, of which only one was within the literal meaning of the claim.²⁹

¹⁹ DFT 143 III 666 – *Pemetrexed II*.

²⁰ DFT 143 III 666 cons. 4.1.

²¹ DFT 143 III 666 cons. 4.5.

²² Meier-Beck GRUR Int 2005, 796 (800).

²³ DFT 143 III 666, cons. 5.4.1.

²⁴ DFT 142 III 772, cons. 6.4.

²⁵ DFT 143 III 666 cons. 5.4.3.

²⁶ DFT 143 III 666 cons. 5.5.1: "Danach ist zu beurteilen, ob der fachkundige Dritte bei objektiver Lektüre der Patentschrift zum Schluss gelangt, der Patentinhaber habe den Anspruch – aus welchen Gründen auch immer – so eng formuliert, dass er den Schutz für eine gleichwirkende und auffindbare Ausführung nicht beanspruche".

²⁷ Meier-Beck GRUR 2003, 906 (909); BGH GRUR 2016, 921 para 51 – *Pemetrexed*.

²⁸ DFT 143 III 666 cons. 5.5.4.

²⁹ DFT 143 III 666 cons. 5.5.4 i. f.

IV. Equivalency in Switzerland after *Pemetrexed*

The Federal Patent Court has had three opportunities to assess an alleged infringement by equivalent means since the Federal Supreme Court's judgment in the *Pemetrexed* case issued. In the first case, concerning a horological writing instrument, the court formulated the first two questions as in its *Urinalventil* decision and the third question as formulated by the Federal Supreme Court in the specific section of the *Pemetrexed* judgment.³⁰ The court, in other words, stuck with its decision to assess the second question *ex post*. Applying the questions to the facts of the case, the court concluded that there was no infringement because the contested embodiment lacked a claimed feature entirely. An appeal against the judgment was dismissed.³¹

The second case closely echoed the facts of the *Pemetrexed* case. The patent concerned a silicon hairspring for a balance wheel of a mechanical watch. During prosecution the patentee limited the type of silicon wafer to be used to a monocrystalline wafer with {001} crystal plans. The contested embodiment used a hairspring cut from a {110}-wafer. It was undisputed that the orientation of the lattice plans had no material effect on the functioning of the invention and that a skilled person would recognize this immediately. Applying the template of the *Pemetrexed* decision to the third question, the court concluded that the reason for the limitation remained unclear. It was not introduced to distinguish the invention from the prior art. The patentee therefore did not act in bad faith by arguing for infringement by equivalent means of the limited feature. The patent failed to specifically disclose more than one crystal orientation of the plans of the monocrystalline silicon wafer. The limitation to a specific orientation could therefore not be considered a choice to limit the protection to a specific embodiment.³²

Finally, the Federal Patent Court considered infringement by equivalent means of the base patent of a Supplementary Protection Certificate in *obiter dicta* in a judgment of 3 May 2019. Gilead Sciences had obtained a Supplementary Protection Certificate (SPC) for a medicament comprising tenofovir disoproxil *fumarate* and emtricitabine (TRUVADA®). Mepha Pharma commercialized a generic version of TRUVADA® comprising tenofovir disoproxil *phosphate* and emtricitabine. The court held that the scope of protection of the SPC encompassed all medicaments comprising the same active ingredients irrespective of the salt form as long as they were pharmaceutically equivalent, i.e. covered by the same marketing authorization.³³ Alternatively, if one were to apply the "general principles of patent law" for determining the scope of protection of an SPC the SPC would be infringed by equivalent means when applying the three-factor test as formulated by the Federal Supreme Court in the *Pemetrexed* case.³⁴ Again, the Patent Court used the formulation of the second question according to the *Urinalventil* case, i.e. an *ex post* assessment. The decision was confirmed on appeal based on the principal reasoning (pharmaceutical equivalence) without the Federal Supreme Court addressing the *obiter dicta* concerning the determination of the scope of protection of an SPC using "general principles of patent law".³⁵

V. Policy Issues

Subtle differences in phrasing the questions used to determine the scope of protection of a patent claim are one

thing, but the reason to include non-literally infringing embodiments within the scope of protection of a patent is to balance a fair protection for the patent proprietor with a reasonable degree of certainty for third parties.³⁶ In the following, I will add some observations on whether the Swiss approach to equivalency achieves this policy goal. I must stress that these are my personal thoughts, notwithstanding my position as president of the Federal Patent Court.

1. Should the finding that the variant has the same technical effect as the claimed feature be based on an *ex post* or an *ex ante* perspective?

The primary difference between the German and the Swiss approach – as practiced by the Federal Patent Court – lies in the second of the three questions used to determine the scope of protection. While the case law of the Bundesgerichtshof requires that the skilled person is enabled by his expertise on the priority date to find the modified means as having the same effect,³⁷ i.e., without inventive activity, the Federal Patent Court asks whether the skilled person recognizes that the variant fulfils the same function as the claimed feature based on the patent's teaching knowing that the feature has been replaced.³⁸

An advantage of the *ex post* assessment of the second question is that it captures infringements by equivalent means when the variant is only discovered after the priority date.³⁹ Most patent lawyers agree that such cases should fall within the scope of protection of the patent,⁴⁰ but they fall outside the wording of the second question of the Bundesgerichtshof. The other advantage of the approach is that it treats equivalent infringement by inventive variants the same as literal infringement by patented embodiments. The legislator does not consider the inventiveness of a dependent invention as a defense against an infringement claim (cf. Art. 36 Patent Act). The same should be true for inventive variants outside of the literal meaning of the asserted claim.

Kellenter criticizes this reasoning because in the case of inventive variants, the careful patentee could not have formulated the claim such that it literally encompasses the variant without further inventive activity. It therefore does not deserve protection for such variants.⁴¹

The most serious disadvantage of the *ex post* assessment of the obviousness of the variant is that the question is

³⁰ FPC decision O2015_018 of 15 June 2018, cons. 60 – instrument d'écriture.

³¹ FSC decision 4A_435/2018 of 29 January 2019.

³² FPC decision S 2018_006 of 8 February 2019 – silicon hairspring. The decision was issued in preliminary injunction proceedings and not appealed.

³³ FPC decision O2017_023 of 3 May 2019, cons. 27 – *Schutzbereich ESZ*.

³⁴ FPC decision O2017_023 of 3 May 2019, cons. 40.

³⁵ FSC decision 4A_274/2019 of 26 November 2019, cons. 4 – *Schutzbereich ESZ II*.

³⁶ Art. 1 Protocol on the Interpretation of Art. 69 EPC 2000.

³⁷ Translation according to Meier-Beck in Pumfrey et al., Yale J. Law & Tech 2009, 261 (292).

³⁸ FPC decision O2014_002 of 25 January 2016, cons. 6.5.2.4 – *Urinalventil*.

³⁹ UK Supreme Court, *Actavis v. Eli Lilly*, [2017] UKSC 48, at para. 63.

⁴⁰ For a court case see OLG Düsseldorf decision I-2 U 5/14 of 7 July 2016, GRUR-RS 2016, 21120 – *Partikel-Auffangvorrichtung*.

⁴¹ Kellenter GRUR 2018, 247 (253). Critical also Meier-Beck GRUR Int 2005, 796 (800).

rarely limiting and may lead to overly broad patentee protection. This has been objected against the UK Supreme Court's formulation of the second protocol question⁴² and it applies in equal force, if not more forcefully, to the Swiss formulation.

2. When does a patentee formulate a claim so narrowly that it surrenders protection for equivalent means?

At first blush the test whether the skilled person, when reading the patent, concludes that the patentee formulated the claim so narrowly that it surrendered protection for an equally effective and obvious variant is hardly limiting. Surely, a reasonable patentee would not willingly limit the scope of protection unless the claim was otherwise invalid.

But the Federal Supreme Court also endorses the Bundesgerichtshof's reasoning in *Okklusionsvorrichtung*:⁴³ if the patent discloses more than one specific⁴⁴ embodiment of the invention, those disclosed embodiments that fall outside the literal meaning of the claim are considered surrendered. This gives the third question "bite" – *Okklusionsvorrichtung* substantially reduced findings of infringement by equivalent means by lower courts in Germany.⁴⁵

The logic of *Okklusionsvorrichtung* appears convincing.⁴⁶ However, if one considers the doctrine of equivalents to correct for drafting mistakes that lead to overly narrow claims,⁴⁷ the logic loses its force.⁴⁸ I consider it broadly correct that extending the scope of protection beyond the literal meaning of the claim is justified when the contribution of the patent to the state of the art would have warranted a broader claim, but the patentee mistakenly – or efficiently⁴⁹ – drafted the claim too narrowly.⁵⁰ The patent has contributed specifically disclosed embodiments to the state of the art, while it arguably has not contributed embodiments that are merely discoverable based on the teaching of the patent. Policy therefore dictates that specifically disclosed embodiments are more deserving of protection than non-disclosed embodiments.⁵¹ From a practitioner's perspective, it also appears doubtful that one can read a surrender of non-claimed disclosed embodiments into a claim too narrowly drafted.

Applying Hanlon's razor – "never attribute to malice that which is adequately explained by stupidity" – not claiming specifically disclosed embodiments appears to be the result of negligence rather than intent. Take the example of an application the claims of which were narrowed so that specifically disclosed embodiments now fall outside the literal meaning of the claims. In case (i) the applicant deletes any embodiments not within the claims before publication of the grant, in case (ii) he fails to do so. Under the logic of *Okklusionsvorrichtung*, the scope of protection of the first patent is broader than that of the second patent. It seems doubtful that policy considerations support this distinction.

On the other hand, the Swiss approach to determining the scope of protection may have inadvertently tipped the scales too far in favour of patentee. Inadvertently because the result of the re-formulation of the third question by the Federal Supreme Court in the *Pemetrexed* case in combination with the earlier insistence in the *Urinalventil* case that inventive variants can be infringing may not have been intended. It creates a test that will often find in favour of the patentee if a variant fulfils the same function(s) as the replaced feature. The second and third question are rarely limiting. Accepting the reasoning of *Okklusionsvorrichtung* may be the limiting factor needed even if one is not fully convinced by the persuasive strength of the decision.

⁴² See, e.g., Cordery, Actavis and Equivalents – One Year On, patentblog.kluweriplaw.com/2018/07/12/actavis-equivalents-one-year (accessed 30 April 2020).

⁴³ DFT 143 III 666 cons. 5.5.4 citing BGH GRUR 2016, 921 – *Pemetrexed*.

⁴⁴ That it has to be specifically disclosed was clarified by BGH GRUR 2016, 921 – *Pemetrexed*, and GRUR 2016, 1254 – *V-förmige Führungsanordnung*.

⁴⁵ Kellenter GRUR 2018, 247 (249).

⁴⁶ For a defence of *Okklusionsvorrichtung* see Meier-Beck, FS 80 Jahre Patentgerichtsbarkeit in Düsseldorf, 2016, 361(365).

⁴⁷ See, e.g., Pumfrey/Basheer in Pumfrey et al., Yale J. Law & Tech 2009, 261 (272).

⁴⁸ Most prominent German critic of *Okklusionsvorrichtung* is Kühnen, HdB d. Patentverletzung, 12th ed. 2020, 111 sq.

⁴⁹ Lichtman Georgetown Law Journal 2004, 2013 ssq.

⁵⁰ One can criticize that the doctrine of equivalents thereby induces sloppiness in drafting, see Meurer & Nard Georgetown Law Journal 2004, 1947 ssq.

⁵¹ Kühnen (note 48), 111.