Non-overlapping Rights: A Patent Misconception

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1. Introduction

Patents are regarded as fundamentally important to the progress of an innovation-based economy. Their importance stems from both the monopoly rights they are perceived to grant to the patent owner and the signalling role they are seen to play for the patentee’s competitors—“back off, this invention, and the right to exploit it, is taken”. This role is straightforward in theory but complex in practice, because determining what, exactly, is protected by a patent is inherently difficult due to the legal and technical nature of patent law.

Commentators, especially those from an economic perspective, have made calls for the patent system to preclude the grant of patents that would give rise to “overlapping rights”. The situation of patent rights overlapping has been termed, pejoratively, a “patent thicket”. For a firm wishing to enter a market surrounded by a patent thicket, the “large numbers of overlapping patents make it extremely difficult to assess the scope of rights that their holder is entitled to”. Where multiple patentees have rights that cover different aspects of a particular innovation, a competitor requires the authorisation of each patentee before the competitor can make commercial use of that innovation. The more there are patentees from whom authorisation is required, the greater is the chance that one of the patentees will refuse authorisation—leading to “hold-up”. Even where authorisation is not refused, the more there are patents relating to a particular innovation, the higher are the number of licence fees that will be payable to commercialise that innovation; which, in turn, increases the chances of “hold-up licensing”. Thus, the existence of overlapping patent rights is considered by economic commentators to be bad because it adds unnecessary transaction costs.

While the nature of the concern about overlapping patent rights has been clearly articulated, the concept of overlapping patent rights has not. Although various economic commentators have referred to “overlap”, none have provided a detailed consideration of what “overlap” actually means; and even legal commentators have failed to define the concept of overlapping patent rights. As a result, the literature is silent on what constitutes an overlap of patent rights and on whether any overlap is legally permissible.

This article fills the gap in the literature. In particular, it provides the logical and the legal analyses required to identify the existence, and to determine the validity and the consequence, of overlapping patent rights. The
outcome of these analyses is clear: the overlapping of patent rights can and does occur in practice, this is legally permissible in various situations and, where it is permitted, this should not be considered problematic.

2. What are overlapping patent rights?

To understand the ways in which patents may overlap each other, it is necessary to understand patent claims, patent validity and patent infringement. Each of these concepts is explained briefly in turn, before consideration is given to the capacity of the patent system to accommodate overlapping rights.

2.1 Patent claims, patent validity and patent infringement

An application for a patent is made by way of a patent specification. A patent specification must be in writing, and must contain a description of the invention and at least one claim to the invention. The description of the invention must be such that a person skilled in the relevant art could reproduce the invention. This fulfils the public interest in expanding the body of knowledge—this is, for economists, the “knowledge spill-over” benefit of the patent system. Disclosing the invention to the public is considered the quid pro quo of the invention must be such that a person skilled in the relevant art could reproduce the invention. The description of the invention must be such that a person skilled in the relevant art could reproduce the invention. This fulfils the public interest in expanding the body of knowledge—this is, for economists, the “knowledge spill-over” benefit of the patent system. Disclosing the invention to the public is considered the quid pro quo of the exclusive rights provided by the patent grant.

The claims contained in the specification must “define the subject matter for which protection is sought”. Further, “each claim of a patent is treated as if it was a separate patent”. Thus, each claim has to meet the requirements for patent validity and each claim gives rise to exclusive rights. Therefore, from a legal perspective, what matters are the claims contained in the granted patent—because it is the claims that define the subject matter to which the exclusive rights of the patent apply. This point does not appear to have been fully understood by economists. Their call for non-overlapping patent rights is, it is submitted, misconceived; strictly, they should be calling for non-overlapping patent claims.

There are a number of requirements that must be met for a patent to be held to be valid. For the purposes of this article, the two most relevant requirements are that the claimed invention is novel (i.e. is new) and that the claimed invention involves an inventive step (or, in US terms, is non-obvious).

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The final detail of patentability that needs to be understood for any discussion on overlapping claims is the concept of a “priority date”. The priority date of a claim is, in most circumstances, the date on which the application containing the claim was filed with the patent office. However, where the applicant has filed an earlier application containing the same or a very similar claim, the priority date of the claim is the date of the earlier patent application, even if that application was filed at another patent office. The priority date is important because the tests for novelty and inventive step are conducted only against the prior art that existed before the priority date. Prior art that only came into existence on, or after, the priority date is ignored for judging the validity of the patent.

Patents are deemed to have the “attributes of personal property”. The specific entitlement accorded to a patentee is the right to exclusive commercial exploitation of the invention—in essence, the exclusive rights to make, to use and to sell the invention. For the purposes of overlapping claims, it is important to note that the existence of one’s own patent does not constitute a defence to infringement of someone else’s patent:

12 EPC art.54(1). The equivalent US provision is in 35 USC §102.
13 EPC art.54(1).
14 EPC art.56. The equivalent US provision is in 35 USC §103.
15 There are, of course, other requirements—including that the invention constitutes patentable subject matter and exhibits industrial applicability/utility—which must be satisfied for a patent to be valid. However, those other requirements do not impact on the issue of overlapping claims, and so are not discussed herein.
16 See EPC arts 54(2) and 80, and the Implementing Regulations thereto. For the US, see 35 USC §111(b)(4) and, with respect to foreign filings, 35 USC §119(a). Although the US is said to have a “first-to-file” system as opposed to the “first-to-invent” system as opposed to the “first-to-file” system, the filing date is used to establish the priority date for an application. Under the US system, the filing date is the provisional priority date, though the applicant may seek to establish that the invention was made earlier. In such a case, the applicant has the onus to prove the earlier date.
17 35 USC §261. See also EPC Ch.IV.
18 35 USC §271(a). National law governs the exclusive rights provided by a patent granted under the EPC. The UK Patents Act 1977 s.60(1) and (2), sets out the acts that constitute an infringement of a patent in the UK.
"It is elementary that a patent grants only the right to exclude others and confers no right on its holder to make, use or sell."19

It seems, however, that this is not widely understood:

"Lay persons are often surprised by the idea that [even though they are a patentee] they can still be responsible for infringing another dominating patent."20

Because the invention is defined by the claims of the patent, the patentee’s exclusive right is bounded by the scope of the claims. The US Supreme Court has " likened patent claims to the description of real property in a deed";21 therefore, it is to the "claims of every patent . . . that we must turn when we are seeking to determine what the invention is".22 The importance of claims to the determination of infringement is reflected in the focus on claims in this article’s exploration of overlapping patent rights.

2.2 Overlapping patent claims

It is now possible to address the issue of what, exactly, it means to say that the rights of two patents overlap. Given what was said above about claims, it follows that the issue of overlapping patent rights is, in practice, the issue of overlapping claims. We define claim overlap as follows: two claims may be said to overlap if an embodiment falls within both of the claims. Put another way, two claims will overlap if there could exist one thing that would constitute an infringement of both claims.

Consider two claims, A and B. Logically, there are four possibilities for "overlap" of these claims:

(i) the scope of claim A subsumes the scope of claim B ("Type I overlap");
(ii) the scope of claim B subsumes the scope of claim A ("Type II overlap");
(iii) part of the scope of claim A is common to part of the scope of claim B ("Type III overlap"); and
(iv) the scope of claims A and B are, or in essence are, identical ("Type IV overlap").

These four possibilities are illustrated in Figure 1. The labelled circles illustrate the scope of the respective claims, and the letters "IE" represents the alleged infringing embodiment. Because IE comes within the scope of both claims it constitutes an infringement of both claim A and claim B. Thus, it can be said that claim A and claim B overlap. These four possibilities are best understood by applying them to examples. Consider the following set of hypothetical claims:23

![Figure 1 Possibilities of overlapping claims](image_url)

- Claim 1: A mixture containing substances X and Y.
- Claim 2: A mixture according to claim 1 wherein the proportion of the mixture that is Y is in the range of 20–40 per cent.
- Claim 3. A mixture according to claim 1 wherein the proportion of the mixture that is Y is not less than 30 per cent.
- Claim 4. A mixture containing substances X and Y in any proportion.
- Claim 5. A mixture containing substances X, Y and Z.

It will be observed that:

(i) the relationship between claims 1 and 2 is an example of Type I overlap;24
(ii) the relationship between claims 2 and 4 is an example of Type II overlap;25
(iii) the relationship between claims 2 and 3 is an example of Type III overlap; and
(iv) the relationship between claims 1 and 4 is an example of Type IV overlap.

These four types of overlapping claim are illustrated in Figure 2. If the alleged infringing embodiment (IE) is a mixture of substances X and Y where Y comprises, say, 35 per cent of the mixture, it will be seen that IE falls within both claims in each illustration. Hence, it can be said that the claims in each illustration are overlapping claims.

23 It is acknowledged that real claims are not usually this simple. Where claims are more complex, "claim interpretation is not always an exact science": Q-Pharma Inc v Andrew Jergens Co 360 F.3d 1295, 1301 (Fed. Cir. 2004); and, even when they are simple, "it is not unusual for parties to offer competing definitions of even the simplest claim language". Simple claims, however, are sufficient to demonstrate the possibilities of overlap.
24 This example is not exhaustive. It will also be observed that another example of Type I overlap is the relationship between claims 1 and 3.
25 This example is not exhaustive. It will also be observed that other examples of Type II overlap are the relationship between claims 3 and 4, and the relationship between claims 1 and 3.
3. Are overlapping patent rights valid?

Two analyses are undertaken in this section. First, it is determined which, if any, of the four logical possibilities for claim overlap may occur in practice. Secondly, it is determined whether such overlap is permitted in law; and, if it is, with what consequences.

Given the confusion that is often exhibited by commentators in this area, it is necessary to make clear exactly what is being done here. The analyses undertaken below are based on the definition of two claims overlapping where there is an embodiment that comes within the scope of both claims—that is, where there is an embodiment that infringes both claims. This analysis is not about whether one claim would “infringe” the other claim. The concept of a claim “infringing” another claim is simply nonsensical—words cannot infringe a patent claim. The only thing that can infringe a patent claim is an actual product, process or use; and, as has been explained in s.2.1, above, it is irrelevant to the issue of infringement whether or not the alleged infringing product, process or use is the subject of some other patent claim.

There are multiple scenarios to consider, because claims A and B can have either the same priority date or different priority dates and can be in either the same patent specification or different patent specifications. In the analyses below, it is assumed that each claim is valid in its own right.26 That is to say, it is assumed that each claim has the requisite level of novelty and inventive step with respect to all prior art except the other, overlapping, claim.27

3.1 Claims with the same priority date

The first group of scenarios considered is where the priority date of claim A is the same as the priority date of claim B. This scenario can occur both where the two claims are in the same patent specification and where the two claims are in different patent specifications.

The most common example (indeed, the paradigm) of the scenario of claim A and claim B having the same priority date is where the claims are contained in the same patent specification. The fact that they are in the same patent specification means they were filed on the same day. Claims filed on the same day will, as general rule, have the same priority date.28 Furthermore, the fact that the two claims are in the same patent specification means that neither claim forms part of the prior art against which the validity of the other claim is judged. This is because the patent specification in which the claims are contained will not have been published at the priority date of the claims.29

26 This article is concerned with the issue of the overlap of valid patent claims. It is recognised that there is the potential for patent examiners to grant patents that are not valid, and that these non-valid patents may overlap. Sometimes, the resulting overlap may be directly related to the invalidity of a patent’s grant. As Burk and Lemley state, “multiple patents often cover the same ground . . . sometimes because patents regularly issue that are too broad or tred on the prior art”: D. Burk and M. Lemley, “Policy Levers in Patent Law” (2003) 89 Virginia Law Review 1575, 1614. As will be shown in this article, however, overlap can occur with respect to validly granted patent claims.

27 Where the other claim forms part of the prior art against which the validity of the analysed claim is judged, the analysis determines if the other claim renders the analysed claim invalid. It is, of course, possible, that some claims within the same patent specification will have different priority dates. This will happen where the source from which a claim derives priority is different from the source from which another claim derives priority, and those sources do not themselves give rise to same priority date. Where the priority dates of two claims in the same patent specification are different, that scenario is discussed in s.3.2, below.

28 A patent specification is published some time after filing, usually 18 months after filing. Because a claim will have a priority date no later than the date of filing of the specification in which it is contained, the publication of the specification is always after the priority date of the claims in it. Thus, a published patent...
A less common, but still possible, example of the scenario of claims A and B having the same priority date is where the two claims are in different patent specifications. The most usual way in which this situation arises is where a patent applicant files a divisional application— or, as it is known in the United States, a continuation application. A divisional/continuation application is an application that is filed after another application; in many cases, it is filed after the first application receives an adverse report upon examination by the Patent Office. Importantly, the divisional/continuation application retains the priority date of the earlier application.

Where two claims are in different patent specifications, it is possible that one of the patent specifications will have been published prior to the other specification being filed. The prior art against which the validity of a claim is judged includes a patent specification (and the claims contained therein) published before the priority date of the claim. In general, therefore, the prior art against which the validity of a claim is judged includes a claim contained in a previously published patent specification. It might be thought that this makes it possible for a claim in a published patent specification (say, claim A) to be part of the prior art against which the validity of another claim (say, claim B) in a different patent specification is judged, even though both claims have the same priority date. However, some thought will show this is not possible. Because a patent specification is not published until after it is filed, the date of publication of a patent specification cannot be earlier than the priority date of a claim in that specification. This means it is not possible for the patent specification containing claim A to be part of the prior art against which the validity of claim A is judged. It also follows that the patent specification containing claim A cannot be part of the prior art against which the validity of claim B is judged, where claim B has the same priority date as claim A.

All of the above may be summarised as follows. Where two claims have the same priority date, neither claim constitutes part of the prior art against which the validity of the other claim is judged. This is so even if the two claims are in different patent specifications, and even if one of those specifications is published before the other specification is filed.

(a) Type I overlap (A subsumes B)

Type I overlap (the scenario of one claim subsuming another claim) is very common in practice. The paradigm of this scenario is where the two claims are contained in the same patent specification, and the second claim is drafted as being “dependent” on the first claim. Thus, where claim B is drafted in the form “[product/process/use] according to claim A wherein [refining feature/limitation]”, claim B is subsumed by claim A and so it may be said that claim A overlaps claim B. Claim B is subsumed because the additional feature gives claim B a more restricted scope than that of claim A. As noted previously, this type of overlap is illustrated by the relationship between hypothetical claims 1 and 2. In that example, claim 2 is a sub-set of claim 1, because claim 2 encompasses only those mixtures of X and Y where the proportion of Y is in the range 20–40 per cent.

It is clear that this scenario is legally permissible. Claim B is not redundant in light of claim A. Rather, claim B is a more refined form of claim A, in that claim B has at least one limiting characteristic that makes it a sub-set of claim A. Thus, patent law permits one claim to wholly subsume another claim with the same priority date.

The legal consequence of this type of overlap is that everything that is an infringement of claim B will also be an infringement of claim A, but not everything that is an infringement of claim A will be an infringement of claim B—because claim B will not be infringed by a product/process/use within claim A that does not have the refining feature or limitation of claim B. In the example of the hypothetical claims, a mixture of X and Y where the proportion of Y is 25 per cent will infringe both claim 2 and claim 1; however, a mixture of X and Y where the proportion of Y is 15 per cent will infringe only claim 1.

(b) Type II overlap (B subsumes A)

Type II overlap is the converse of Type I overlap. This scenario is possible in practice. An example of this possibility is where one patent specification contains a subsequently-numbered claim that subsumes a previously-numbered claim (in the way that hypothetical claim 4 subsumes hypothetical claim 2). Another example of this scenario is where a claim in one patent specification subsumes a claim in another patent specification.

This overlap scenario is legally permissible. As noted in the discussion of Type I overlap, there is nothing in patent law that precludes one claim from wholly subsuming another claim with the same priority date. This is so regardless of whether the subsuming claim is in the same or a different patent specification as the subsumed claim.
The legal consequence of this type of overlap is the converse of Type I overlap: everything that is an infringement of claim A will also be an infringement of claim B, but not everything that is an infringement of claim B will be an infringement of claim A—because claim A will not be infringed by a product/process/use within claim B that does not have the refining feature or limitation of claim A. In the example of the hypothetical claims, a mixture of X and Y where the proportion of Y is 30 per cent will infringe both claim 2 and claim 4; however, a mixture of X and Y where the proportion of Y is 50 per cent will infringe only claim 4.

(c) Type III overlap (partial overlap)

Type III overlap occurs in practice when both claims A and B refine another claim by way of a common feature, and the two refinements are not mutually exclusive of the other. As stated above, an example of this type of overlap is the relationship between hypothetical claims 2 and 3. Claims 2 and 3 overlap when there is a mixture of X and Y where the proportion of Y is in the range 30–40 per cent, because this proportion of Y is within the range of claim 2 (20–40 per cent) and of claim 3 (30 per cent or more).

This type of overlap is legally permissible. As we know from the legal permissibility of Type I overlap and Type 2 overlap, there is nothing in patent law that requires claims with the same priority date to be mutually exclusive. The legal consequence of this type of overlap is that both claim A and claim B will be infringed in some, but not all, situations. Both claims will be infringed where the product/process/use comes within the scope of each claim. In the example of the hypothetical claims, a mixture of X and Y where the proportion of Y in the mixture is 35 per cent will infringe both claim 2 and claim 3; however, where the proportion of Y is 45 per cent the mixture will infringe only claim 3.

(d) Type IV overlap (complete overlap)

The scenario of two claims having identical scope and the same priority date is not unknown in practice. The most likely instance of this scenario is where the claims are in different patent specifications, both of which have been filed by the same applicant. Typically, this scenario would occur as a result of a divisional/continuation application repeating a claim from the original application. A theoretically possible, albeit extremely unlikely, further way in which this situation could arise is where the claims are in different specifications, which are filed by different applicants on the same day.

Whether or not this type of overlap is legally permissible depends on the identity of the applicant for the claims. Where the same applicant has filed both claims, one of the claims is not legally permissible. If the claims are in the same specification, one of them is invalid due to redundancy.36 If the claims are in different specifications, one of them is invalid due to the rule against “double-patenting”.37

In the extremely unlikely situation where the applicant for each claim is different, then both claims are permissible. In this situation, the validity of the two claims would be judged against the same prior art, but not against each other. The prior art includes patent specifications published before the priority date of the claim. Thus, neither patent disclosure would invalidate the other.38

The legal consequence of claims with the same priority date filed by different applicants having identical scope is that each claim gives rise to a separate exclusive right in respect of the invention defined by the claim. Thus, there will be two patents over the same invention, meaning that any competitor seeking to commercialise that invention will require two authorisations—one from each patentee.

3.2 Claims with different priority dates

The second group of scenarios we need to consider is where the priority date of claim A is different from the priority date of claim B.39 As with the previous group of scenarios, these scenarios can occur both where the two claims are in the same patent specification and where the two claims are in different patent specifications.

It is possible that two claims in the same patent specification will have the different priority dates. This will occur, for example, when one of the claims derives priority from an earlier patent specification while the other claim does not. As explained in s.3.1, above, a claim in a patent specification does not form part of the

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36 In the US, identical claims are contrary to r.1.75(b) of the Consolidated Patent Rules, which states that “more than one claim may be presented [in an application] provided they differ substantially from each other and are not unduly multiplied”: 37 CFR §1.75(b). Duplicate claims are considered invalid on the grounds that they are “indefinite for failing to point out and distinctly claim the subject matter which [the patent applicants] regard as the invention”: Ex. p. Nishi 25 USPQ 2d 1817, 1818 (Bd. Pat. App. & Int’l 1992). If an examiner rejects a patent specification containing a duplicate claim, the applicant has the opportunity to amend the application to remove the duplication. 37 “A second patent that covers precisely the scope of the first is invalid for double patenting, even if they stem from the same application”: Lemmly and Moore, above n 32, 81. This is also the case in other jurisdictions; see, e.g. the Australian Patents Act 1990 (Cth) s.64(2). It is noted, however, that the EPO is silent on the matter of “co-pending European applications of the same effective date”: EPO, Guidelines for Examination in the European Patent Office, Pt C, Ch A, para 7.4. 38 “Should two applications of the same effective date be received from two different applicants, each must be allowed to proceed as though the other did not exist”: EPO, Guidelines for Examination in the European Patent Office, Pt C, Ch A, para 7.4. See also Patents Act 1990 (Cth) s.64(1). The justification for this outcome is that it would be unjust to give preference to one application over the other where they were filed on the same day—on what grounds could one be granted and the other refused? 39 For the purpose of simplicity, the analyses below proceed on the basis that the priority date of claim A is earlier than the priority date of claim B, and that claim A is contained in a patent specification that has been published before the priority date of claim B.
prior art against which the validity of another claim in the same specification is judged.

A more common example of the scenario of two claims having different priority dates is where the claims are in different patent specifications. Where the patent specifications are filed on different dates, the priority date of the claims in one specification will, as a general rule, be different from the priority date of the claims in the other specification. In this scenario, it is quite common for one of the claims to form part of the prior art against which the validity of the other claim is judged. This will occur, for example, where one claim is in a patent specification that is published before the priority date of the other claim.

The above may be summarised as follows. Where two claims have different priority dates, the claim with the earlier priority date will form part of the prior art against which the novelty of the other claim is judged if the claim with the earlier priority date is in a specification that was published before the priority date of the other claim.

(a) Type I overlap (A subsumes B)

The scenario of a claim with an earlier priority date (claim A) subsuming a claim with later priority date (claim B) is possible in practice. One instance of this scenario is where claim B is a “selection claim” (sometimes called, inaccurately, a “selection patent”). A selection claim is a claim to a portion (that is, a selection) of subject matter that is defined in an earlier claim. A common area for this type of claim is the chemical industry, where the earlier claim covers a class of chemicals and the later (selection) claim covers a sub-set of chemicals, or even just a particular chemical, from within that class. In the example of the hypothetical claims, claim 2 may be considered a selection claim because it “selects” from claim 1 all those mixtures of X and Y where the proportion of the mixture that is Y is in the range 20–40 per cent. Another instance of this scenario is an “improvement claim” (sometimes called, inaccurately, an “improvement patent”). An improvement claim is a claim that defines an invention that has an additional (improving) feature compared to the invention defined in the earlier claim. In the example of the hypothetical claims, claim 5 may be considered an improvement claim because it “improves” on claim 1 by adding the feature of Z to the mixture containing X and Y.

It is clear that this scenario is legally permissible, if certain conditions are satisfied. Even though claim A forms part of the prior art against which claim B is judged, claim B may still be found to be novel and inventive. Even though the existence of the subject matter defined by a later claim has been hypothesised by an earlier claim, that subject matter will be considered novel so long as it has not come into existence (that is, actually been made) at the priority date of the later claim. Furthermore, where the invention defined in a later claim has a “special property of an unexpected character” over the invention defined in an earlier claim, this fact demonstrates that the later claim is inventive when compared with the earlier claim.

In the hypothetical example, if a mixture of X and Y where the proportion of Y is in the range 20–40 per cent has never been made, then the later claim 2 is novel compared to the earlier claim 1; and, if the characteristic of the mixture containing those proportions of Y is such as to give the mixture a “special property of an unexpected character” over all other mixtures of X and Y, then claim 2 has an inventive step (that is, is not obvious) compared to claim 1. Likewise, if a mixture containing X, Y and Z has never been made, then claim 5 is novel; and, if the effect of adding Z to the mixture of X and Y gives the resulting mixture a special property of an unexpected character, then claim 5 is inventive.

The legal consequence of this scenario is the same as the legal consequence of Type I overlap where the claims have the same priority date—that is, everything that is an infringement of claim B will also be an infringement of claim A, but not everything that is an infringement of claim A will be an infringement of claim B. Where the two claims are in different patent specifications, it is possible that the patentee of each claim will be a different person. If this is so, the patentee of claim A does not need the authorisation of the patentee of claim B to continue commercialising the invention defined by claim A; but the patentee of claim B does need the authorisation of the patentee of claim A to commercialise the selection or improvement invention defined by claim B.

(b) Type II overlap (B subsumes A)

This scenario is the converse of the immediately preceding scenario—that is, a claim with a later priority date (claim B) subsumes a claim with an earlier priority date (claim A). This type of scenario is possible in for a diode. For a discussion of this case see M. Lemley, “The Economics of Improvement in Intellectual Property Law” (1997) 75 Texas Law Review 989, 1009.


46 An example from US law can be found in Baird, Re 16 F3d 380 (Fed Cir. 1994), where the prior patent encompassed “more than 100 million different diphensols” of which the later (selection) claim included a mere 20.

40 As noted in s.3.1 above, however, it is possible that the claims in two different patent specifications file on two different dates will have the same priority date—e.g. where the second specification is a divisional/continuation application deriving priority from the first application.

41 For completeness, it should be noted that this can also occur, for the purpose of judging novelty, where the claim is in a patent specification that is published after the priority date of the other claim, so long as the priority date of the published claim is earlier—see, e.g. EPC art.54(3).

42 The terms “selection claim” and “selection patent” are relatively well known outside the US; the 1930 UK case IG Farbenindustrie AG’s Patent 47 R.P.C. 289, e.g. includes a detailed description of selection patents. In the US, however, this situation is commonly described in terms of a “genus/species relationship”; see, e.g. Jones, Re 958 F.2d 347, 349 (Fed. Cir. 1992).

43 The classic case for this is Marconi Wireless Telegraph Co v De Forest Radio Telephone & Telegraph Co 236 F. 942 (S.D.N.Y. 1916), affirmed, 243 F. 560 (2nd Cir. 1917). This decision found that a patent for a triode, while valid, infringed a patent
practice. An example of this scenario is where both claim A and claim B relate to the same invention, but the invention defined by claim A has a refining feature or limitation that is not present in the invention defined by claim B.

It is clear that this scenario is not legally permissible. This is because claim B will lack novelty compared with the prior art. The invention defined by claim A forms part of the prior art against which the validity of the invention defined by claim B is judged. Because all the essential features of the invention defined by claim B will be present in the invention defined by claim A, claim B will not be novel compared with claim A. Put another way, even though the invention in the prior art (as defined by claim A) contains features additional to the features defined by the later claim B, the features of claim B have been disclosed by claim A and thus claim B lacks novelty. In the hypothetical example, the later claim 4 will not be novel because a number of mixtures of X and Y (in various proportions) were already in the prior art, by virtue of the disclosure of the earlier claim 2—namely, those mixtures of X and Y where the proportion of Y is in the range 20–40 per cent.

The legal consequence of this scenario is that claim B will not be valid. This means that the patentee of claim B does not acquire any exclusive rights to the invention defined by claim B. Thus, competitors do not need authorisation from the patentee of claim B to make a product or use a process that falls within the scope of claim B.

(c) Type III overlap (partial overlap)

The scenario of a claim with a later priority date (claim B) partially encompassing a claim with an earlier priority date (claim A) is possible in practice. An example is where claim A and claim B both improve an earlier claim, but do so by adding a number of features of which only one is common to both claims.

It is clear that this scenario is legally permissible, so long as certain conditions are satisfied. The law on novelty is that a claim will be novel so long as the prior art does not contain subject matter that exhibits all the essential features of the invention defined in the claim. Therefore, the existence of an earlier claim will result in a later claim lacking novelty only if the invention defined by the earlier claim discloses all the essential features of the invention defined by the later claim. Thus, where claim B includes an essential feature that claim A does not include, claim B will be novel compared to claim A. Furthermore, claim B will be inventive compared to claim A so long as the inclusion of that essential feature was not obvious to a person skilled in the art. In the hypothetical example, the later claim 3 will be novel compared with the earlier claim 2 because an essential feature of claim 3 is that the proportion of Y can exceed 40 per cent—and this feature is not disclosed by claim 2.

If the fact that the proportion of Y can exceed 40 per cent was not obvious to the person skilled in the art, the later claim 3 will also be inventive (non-obvious).

The legal consequence of this type of overlap, where it is permitted, is the same as the legal consequence of Type III overlap where the claims have the same priority date—that is, both claim A and claim B will be infringed in some, but not all, situations. Where the two claims are in different patent specifications, it is possible that the patentee of each claim will be a different person. If this is so, a third party competitor wishing to commercialise a product, process or use that falls within both claims will need the authorisation of both the patentee of claim A and the patentee of claim B. However, neither patentee requires the authorisation of the other to commercialise their own invention, because neither invention adopts all the essential features of the other invention.

(d) Type IV overlap (complete overlap)

The scenario of two claims with different priority dates having identical scope is possible, albeit highly unlikely, in practice. An example is where the claims are contained in different patent specifications that have been filed by different applicants who have been engaging in a “race” to make the same invention—such as, for example, the identification of a gene sequence.

It is clear that this scenario of claim overlap is not legally permissible. The earlier claim, claim A, will form part of the prior art against which the validity of the later claim, claim B, is judged. Because the invention defined by claim A is identical to the invention defined by claim B, claim B lacks novelty. Thus, claim B is not valid.

The legal consequence of this scenario is that there is only one claim—claim A—that gives rise to exclusive rights over the invention. Any person, including the patentee of claim B, who seeks to commercialise that invention requires the authorisation of claim A.

4. Conclusion

The validity of economists’ calls for non-overlapping patent rights cannot be established until three preliminary questions have been answered: (i) what constitutes overlapping patent rights; (ii) in what situations does the law permit the overlapping of patent rights; and (iii) what are the consequences of overlapping patent rights?

This article has answered those questions. Patent rights can be said to “overlap” when there exists two or more valid patent claims that would be infringed by one embodiment. There are four types of patent claim overlap that can occur in practice. Where the overlapping claims have the same priority date, each type of overlap is legally permissible. Where the overlapping claims have a different priority date, however, only two types of overlap are permitted—and even then, only so long as certain conditions are satisfied.

The consequence of patent claim overlap, where it is permitted, is that each claim gives rise to separate exclusive rights in respect of the invention claimed. Thus, a competitor seeking to commercialise a product, process or use that falls within the area of the claims’ overlap will require authorisation (that is, a licence) in respect of each overlapping claim. Where the patentee of
each overlapping claim is the same entity, the practical significance of the claim overlap is very limited. The fact that multiple claims cover the same embodiment does not give the patentee any meaningful additional entitlement beyond that provided by one claim over the embodiment. The situation is different, however, where the patentee of each overlapping claim is a different entity. In that situation, a separate authorisation is required from each patentee.

This last consequence might be considered as giving rise to the potential for “hold-up” or “hold-up licensing”—and hence giving support to the economists’ call for non-overlapping patent rights. As this article has shown, however, that view is not correct. The overlapping of valid patent claims held by different patentees can only occur where the claims define inventions that are novel and inventive (non-obvious) when compared with the prior art. If more than one such invention has been made then there seems no principle that would justify not awarding the exclusive rights of a patent for each of them, even though the exclusive rights so granted will cover common subject matter.