

Patents and the Agricultural Industry

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Abstract

This article gives a brief overview of the patent regime in Australia, with particular emphasis on its relevance to the agricultural industry. The article begins with a background to the patent regime in Australia. It then examines ownership, validity, exceptions to patentability, the application process, the specification and revocation. Relevant provisions of the *Patents Act 1990* (Cth) are examined as necessary, as are relevant regulations in the *Patents Regulations 1991* (Cth). Cases discussed include *National Research Development Corp v Commissioner of Patents* (1959) 102 CLR 252 and *Van der Lely NV v Bamfords Ltd* [1963] RPC 61.

Introduction

Those who make their living from agriculture may not consider intellectual property, and in particular patents, to be of any great significance to their livelihood. However anything that can bring extra cash into the business is worthy of consideration, especially when there are hard times on the land. The value of patents to the Australian economy in general and to individual businesses in particular is not well appreciated in Australia. There were 33,178 patent applications in Australia in 2005/06, up from 19,936 in 1992/93; of these, Australian residents filed 11,205 in 2005/06, up from 8,375 in 1992/93.¹ In 2005 the Microsoft Corporation was the top company applying for standard patents in Australia – tellingly only one of the companies in the top ten for 2003-2005 was an Australian company.²

Subject to the very technical requirements of patent law, there is a limitless variety of different inventions that may be patented. A few examples are machinery, or parts thereof, packaging systems, animal feeding systems, window lintels, pharmaceutical products, portable fencing, locking systems, business methods, and software packages. On the surface some of these examples may appear to have no relevance to the agricultural industry, but in fact each of them may indeed be something that an ingenious agriculturalist invents in the course of his or her day to day work. Sometimes this might be a spur of the moment improvisation borne of necessity and urgency.

Examples of famous Australian agricultural inventions that have been patented are the ‘Sunshine Stripper Harvester’, a combine harvester patented by H.V. McKay in Victoria in 1885, and ‘Dynamic Lifter’, the fertilizer made from dried chicken manure, patented by Norman Jennings in 1986. In the supplement to the *Australian Official Journal of Patents* (the *Official Journal*) dated 19 October 2006 a number of applications have agricultural connections. These include ‘A Guide Means Particularly for Agricultural Equipment’, ‘Edible Sunflower Seeds’, ‘Toad Trap’, ‘Improvements in Temporary Fencing’, and a ‘Vertical Cultivator’.³

The purpose of this article is to give a brief overview of the law relating to patents, and to examine some cases dealing with agricultural patents. The article begins with a background to the patent regime in Australia, and then examines ownership, validity, exceptions to patentability, the application process, the specification and revocation. It is hoped that this will give those in the agricultural industry some basic understanding of what sort of inventions may be the subject matter of registration as a patent, and how this

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¹ *P40 (sep06) Patent activity by Australian States* (2006) <www.ipaustralia.gov.au> at 22 August 2007.

² *Top 10 companies applying for Australian patents in 2003-2005* (2006) <www.ipaustralia.gov.au> at 23 October 2006. Of the top ten, six were US companies, and there was one company from each of the following countries: Australia (Silverbrook Research Pty Ltd, based in Sydney), Korea, England/Sweden and Japan.

³ ‘Australian Government IP Australia’ (2006) *Australian Official Journal of Patents (Supplement)* 3889, 3890, 3895. When searching the internet for examples of recent patent applications, the author was amused to see ‘Fishing, trapping and vermin destroying’ listed under the heading of ‘Entertainment/recreation’ <www.freshpatents.com> at 31 October 2006.

is achieved. The regime specific to the rights of plant breeders, as established by *Plant Breeder's Rights Act 1994* (Cth), will not be covered.

Background to the patent regime in Australia

It must be said at the outset that what follows is not intended to be legal advice. The law of patents is immensely technical and complex,⁴ so the purpose here is only to give some idea in a very simplified way of what may be registered as a patent, and how the legal regime operates. Good advice for those who consider they have an invention worth patenting is to seek the assistance of a patent attorney, and this way the hopeful inventor will avoid the many traps that await the unwary. A person must go through a formal registration process to become a patent attorney, and the profession is regulated by Commonwealth legislation. Patent attorneys are not lawyers; they have a background in science or engineering so they have expertise in how things work. The role of a patent attorney is to carry out the research necessary before embarking upon patent registration formalities, and to present the inventor with the information required to make an informed decision as to whether or not the cost involving in registering a patent is worth the possible commercial return. They are authorised 'to prepare all documents, transact all business and conduct all proceedings', but not 'to prepare a document to be issued from or filed in a court or to transact business, or conduct proceedings, in a court'.⁵

The registered owner of a patent is granted a monopoly for a set period of time over the exploitation of the invention. The law attempts to balance the competing interests of the inventor, who would be discouraged from pursuing advances in innovation without the provision of such monopoly rights, and the interests of the free market, because the granting of a monopoly is essentially anti-competitive. Patents have a long history, and can be traced as far back as the Middle Ages, so it has been accepted for centuries that innovation should be encouraged in this way.⁶ The way in which the balance is redressed is through what is known as the 'specification', discussed later, which is an integral part of the patent process. The specification is a blueprint of how the invention works, and once the period of protection has expired anyone can make use of it as a basis for the next step. Indeed the original monopoly period of fourteen years was the length of two periods of apprenticeship, each period being seven years. According to Loughnan, this was because 'one of the conditions frequently attached to the grant of a patent was an undertaking by the patentee to take on apprentices and teach them 'the knowledge and mystery' of the invention'.⁷

⁴ *The Application Process for your Patent* <www.ipaustralia.gov.au> at 22 August 2007 notes: 'Patents can be very complex. Many people have been caught out by their lack of knowledge and experience in this area, or by their failure to adequately develop their IP protection strategy'.

⁵ *Patents Act 1990* (Cth) s 200(1) and s 200(3) respectively. For more information see <www.ipa.com.au> at 31 October 2006.

⁶ J. McKeough, A. Stewart, P. Griffith, *Intellectual Property in Australia* (2004) 303-306.

⁷ P. Loughnan, *Intellectual Property: Creative and Marketing Rights* (1998) 101.

In Australia the governing legislation is the *Patents Act 1990* (Cth) (the Act), in conjunction with the *Patents Regulations 1991* (Cth).⁸ The Act is a Commonwealth statute which applies universally across all the Australian jurisdictions, and it is administered by the Australian government agency 'IP Australia'.⁹ At present there are two different types of patents, standard patents and innovation patents. Innovation patents are easier to obtain, but have a shorter monopoly period, eight years rather than the twenty years for a standard patent.¹⁰ IP Australia states that the approximate total cost of a standard patent, including patent attorney fees, is \$6,000 to \$10,000, with an additional \$8,000 in maintenance fees over the twenty year term.¹¹ A register of standard and innovation patents is kept at the Patent Office, and this is a public document open to any person during office hours. The register contains particulars of the patent, including details of anyone who has an interest in it, such as a mortgagee or licensee.¹²

The application process

Any person may apply for a patent but the grant is limited to those persons specified in s 15, as discussed later. The Act itself contains a useful flowchart of the process in Table 1 (Getting and Maintaining a Standard Patent) and Table 2 (Getting and Maintaining a Petty Patent). All the necessary forms are available online, with instructions, from the IP Australia website, and the application itself may be made online.¹³ The applicant may file a complete application with a complete specification, or a provisional application with a provisional specification that only has to 'describe the invention.'¹⁴ In the case of the latter, a complete specification must be filed within twelve months.¹⁵ Also as noted earlier, the priority date is generally the date of filing the specification. On receipt of the complete application the Patent Office carries out some formalities and the subject matter is classified into a particular category of patent depending on what the patent is. The name of the applicant, title of the patent and the filing date is published in the *Official Journal*.¹⁶

In the case of a standard patent the applicant must request examination of the patent within five years of filing the complete application or the application will lapse, and the period between the request and examination takes about six months.¹⁷ The patent examiner is required to consider, and report upon, various matters that are set out in s 45 of the Act and in regulation 3.18. These requirements include: whether the grantee is eligible to hold a patent under s 15; whether the application satisfies the formalities in s 29 (such as the application being in the approved form); whether the specification complies with the

⁸ *Patents Act 1990* (Cth) Schedule 1 comprises a dictionary of patent terminology.

⁹ IP Australia also administers the other intellectual property regimes regulated by statute; these are trade marks, designs and plant breeders' rights: <www.ipaustralia.gov.au> at 23 October 2006.

¹⁰ *Patents Act 1990* (Cth) s 68 and s 65 respectively.

¹¹ <www.ipaustralia.gov.au> at 22 August 2007.

¹² *Patents Act 1990* (Cth) ss 186-190; *Patents Regulations 1991* (Cth), regulation 19.1.

¹³ <www.ipaustralia.gov.au> at 07 November 2006.

¹⁴ *Patents Act 1990* (Cth) s 29 and s 40(1) respectively.

¹⁵ *Patents Act 1990* (Cth) s 38, *Patents Regulations 1991* (Cth), 3.10.

¹⁶ *Patents Act 1990* (Cth) s 53, *Patents Regulations 1991* (Cth), 4.1.

¹⁷ *Patents Act 1990* (Cth) s 44; McKeough et al, above n 6, 317.

requirements of s 40; whether the invention is a manner of manufacture that is novel and inventive as per s 18(1)(a), or excluded either under s 18(2) or s 50. Subsections 18(1)(c) and (d), utility and secret use, are not part of the examination process laid out in s 45 or regulation 3.18. Following examination the Commissioner may accept the application, and it is advertised in the *Official Journal*, and documents, including the specification, are made available for public inspection.

Within three months from this point the granting of the patent may be opposed by the Minister or any other person, but only on the basis of whether the grantee is eligible, the invention is not a manner of manufacture that is novel and inventive, or that that the specification does not fulfil the s 40 requirements.¹⁸ The Commissioner decides the case, and an appeal from that decision can be taken to the Federal Court.¹⁹ Once any opposition has been overcome, the patent is granted. The process for an innovation patent is simpler as it is accepted and granted after the formalities check without examination, but it can only be enforced after examination.²⁰ A standard patent lasts for twenty years, usually from the date on which the complete specification was lodged, and an innovation patent lasts for eight years from the date it was granted.²¹ It is important to note, however, that s 20 of the Act states categorically that ‘Nothing done under this Act ... guarantees the granting of a patent, or that a patent is valid, in Australia or anywhere else’.

The specification

The specification must comply with the provisions of s 40. There are further requirements for the specification in the *Patents Regulations*, 3.2A, 3.2B and Schedule 3 (such as margin sizes, type and colour of paper). Section 40(1) says ‘a provisional specification must describe the invention’ and s 40(2)(a) provides that a complete specification must ‘describe the invention fully, including the best known method known to the applicant of performing the invention’. Standard patents must ‘end with a claim or claims defining the invention’, and innovation patents must end with between one and five claims defining the invention.²² The claims must be ‘clear and succinct and fairly based’ on the description of the invention given in the specification. When interpreting the specification the English and Australian courts apply a purposive construction to the words rather than a literal one, the former being a less restrictive approach than the latter. This means the focus is on the patentee’s intention rather than the strict wording of the specification.²³

¹⁸ *Patents Act 1990* (Cth) s 59.

¹⁹ *Patents Act 1990* (Cth) s 60.

²⁰ *Patents Act 1990* (Cth) s 55 and s 101A respectively.

²¹ *Patents Act 1990* (Cth) s 65 and s 68 respectively.

²² *Patents Act 1990* (Cth) s 40(2) & (c) respectively.

²³ See, for example, *Catnic Components Ltd v Hill & Smith Ltd* [1981] FSR 60 and *Populin v HB Nominees Pty Ltd* (1982) 41 ALR 471.

It is the claim, or claims, that set out what the invention is and how it works, so this must clearly be clearly explained by the claim(s). Whatever is encompassed by the claim(s) will fall within the protection of the patent, and anything that is not covered will not. The specification and the claim(s) are subject to scrutiny during the approval process, and also may be an issue should another party seek revocation of the patent on the basis that the specification is not compliant with s 40(2) or s 40(3), or may be raised as a defence during infringement proceedings. The test of fair basis 'is whether the body of the specification provides a real and reasonably clear disclosure of the invention claimed'.²⁴ *Patent Gesellschaft AG v Saudi Livestock Transport and Trading Company* [1997] 95 FCA (18 February 1997) is an example of where claims in a specification were not fairly based. The patent, owned by Patent Gesellschaft (PG), was for a 'Long Distance Livestock Carrier', and related to the conversion of an oil tanker into a livestock carrier. The claims covered details about the feeding system which was a food conveyor and water conveyor comprised of different pipelines running from storage tanks to feeding pens. PG alleged that the respondent had infringed the patent through the ownership and operation into Australia of a livestock ship named the 'Mawashi al Gaseem'; the respondent argued that the claims in the specification, and therefore the patent as a whole, were invalid.²⁵ The judge at first instance, Olney J, found the patent to be invalid, saying 'The specification provides no clue as to the method of supplying food from the dispensing containers to the confinement pens'.²⁶ One of the grounds for the finding of invalidity by Olney J was that two of claims were not fairly based on the specification and the specification did not describe the invention fully, as evidenced by his comment.²⁷ The decision of Olney J was upheld on appeal.²⁸

Because of the need to describe the invention adequately, the specification may be a lengthy document which includes illustrations. The one accompanying Cochlear's Bionic Ear (applied for in 1978) was twenty five pages long with eleven figures; the one accompanying the Orbital Engine (applied for in 1970) had sixteen pages with four figures.²⁹ A patent attorney is an expert at drafting specifications in language which captures all of the technological aspects of the claim at the same time as being understandable and capable of being used as the complete instructions for the making of the invention. This is no easy task, and IP Australia cite the failure of the specification to describe the invention properly as one of the most common reasons for the failure of those applications made without professional help.³⁰

²⁴ *Patent Gesellschaft AG v Saudi Livestock Transport and Trading Company* [1997] 95 FCA (18 February 1997), per Carr J (page 9, internet version at 23 August 2007).

²⁵ *Gesellschaft AG v Saudi Livestock Transport and Trading Company* [1997] 95 FCA (18 February 1997), per Carr J (page 4, internet version accessed 23 August 2007).

²⁶ *Gesellschaft AG v Saudi Livestock Transport and Trading Company* [1997] 95 FCA (18 February 1997), per Carr J (page 8, internet version accessed 23 August 2007).

²⁷ *Gesellschaft AG v Saudi Livestock Transport and Trading Company* [1997] 95 FCA (18 February 1997), per Carr J (page 8, internet version accessed 23 August 2007).

²⁸ *Gesellschaft AG v Saudi Livestock Transport and Trading Company* [1997] 95 FCA (18 February 1997) (page 19-20, internet version accessed 23 August 2007).

²⁹ <www.ipaustralia.gov.au> at 07 November 2006. The full specification of the Orbital Engine can be viewed on this website (see under 'Patent Examples').

³⁰ <www.ipaustralia.gov.au> at 07 November 2006.

The legal requirements for determining the validity of patents

Section 18 of the Act sets out the requirements for validity of a standard patent as follows:

- (1) ... [A]n invention is a patentable invention for the purposes of a standard patent if the invention, so far as claimed in any claim:
 - (a) is a manner of manufacture within the meaning of section 6 of the Statute of Monopolies; and
 - (b) when compared with the prior art base as it existed before the priority date of that claim:
 - (i) is novel; and
 - (ii) involves an inventive step; and
 - (c) is useful; and
 - (d) was not secretly used in the patent area before the priority date of that claim by, or on behalf of, or with the authority of, the patentee or nominated person or the patentee's or nominated person's predecessor in title to the invention.

Subsection 18(1A) applies to innovation patents, and is identical except for subsection (1A)(b)(ii) which says 'involves an innovative step' instead of 'involved an inventive step'.

Subsection 18(2) (which applies to both standard and innovation patents) excludes human beings and the biological processes for their generation from being patentable inventions. Subsection 18(3) excludes plants and animals, and the biological processes for the generation of plants and animals, from being the subject matter of an innovation patent. However s (18)(4) says 18(3) not apply 'if the invention is a microbiological process or product of such a process'.

Each of the requirements will now be discussed.

Manner of manufacture

Section 18(1)(a) makes reference to the historic Statute of Monopolies which was an English statute enacted in 1623. Prior to the Statute of Monopolies the Crown (King or Queen) in England gave monopolies over all sorts of items, such leather, currants and lead, to royal favourites. This was a huge economic benefit to the donee but the practice caused a lot of anger in Parliament, on the basis that it was oppressive and 'grievous' to the English populace.³¹ The Statute of Monopolies declared all monopolies void except those that disclosed a 'manner of *new* manufacture', in other words an invention. The word 'new' is not part of the current Act. The manner of manufacture can be either 'making tangible goods by hand or by machine' or a process,³² both of which may be reproduced by following the instructions in the specification. It was the High Court case of *National Research Development Corp v Commissioner of Patents* (1959) 102 CLR 252 (the *NRDC* case) that established that a process could also be the subject matter of a patent, but both a product and a process must be capable of an industrial, commercial or trading application to be eligible for registration.³³

³¹ McKeough et al, above n 6, 304.

³² *National Research Development Corp v Commissioner of Patents* (1959) 102 CLR 252, at 269.

³³ McKeough et al, above n 6, 328-329.

The NRDC had applied for a patent for an herbicide which would selectively kills weeds in a growing fodder crop. The Deputy Commissioner of Patents deleted three of the six claims in the application, on the basis that the chemical substances were already known, and there was no invention as such. In deciding that a process involving known substances could be the subject matter of a patent, the High Court said:

It [*the claim in the specification*] treats them as substances which in the relevant sense are new, that is to say as substances which formerly were known only partially and, so far as weed-killing potentialities are concerned, were unknown; and its tenor is that by an application of scientific ingenuity, combining knowledge, thought and experimentation, not only in relation to the chemicals but in relation also to the enzyme systems of certain weeds and plants, the applicant has evolved a new and useful method of destroying weeds without harming useful vegetation amongst which they are growing. It is irrelevant, even if true, that once the discovery was made that the chemicals produce a lethal reaction when applied to the weeds and produce no such reaction when applied to the crops there was no more ingenuity required in order to show how the process might be performed. The point that matters is that a weed-killing process is claimed which is distinguished from previously known processes by a feature the suggestion of which for such a process involved a step plainly inventive.³⁴

Another reason that had been put forward for refusal of the NRDC patent application was that it was a discovery, which cannot be patented, as opposed being a manner of manufacture. The High Court, while acknowledging that ‘the distinction between discovery and invention is not precise enough to be other than misleading in this area of discussion’, also said in this case that there had been ingenuity used in finding this different use for the chemicals and the ‘new use that is proposed consists in taking advantage of a hitherto unknown or unsuspected property of the material’.³⁵

Novelty

Section 18(1)(b) refers to an invention that is ‘novel’ and involves an ‘inventive step’, assessed at the time of the priority date. The priority date of a claim is generally the date of filing the specification.³⁶ The requirement for ‘novelty’ in this context means a comparison between the claim made in the specification and the prior art base, to ensure the invention has not been ‘anticipated’ (i.e. the patent has been publicly available somewhere previously). Schedule 1 of the Act gives a definition of the prior art base as being information publicly available anywhere in the world, whether in or out of the patent area. Section 7 of the Act says that this information may be derived from a document or an act done, providing they are publicly available. It encompasses more than one document or more than one act done, as long as ‘a person skilled

³⁴ *National Research Development Corp v Commissioner of Patents* (1959) 102 CLR 252, at 265.

³⁵ *National Research Development Corp v Commissioner of Patents* (1959) 102 CLR 252, at 262 and 264. With reference to excluding discoveries from the patent system, it would be contrary to public policy to allow a monopoly to be granted over ‘the observation of certain physical properties, or the finding of a previously unknown but naturally occurring substance’: McKeough et al, above n 6, 330.

³⁶ *Patents Act 1990* (Cth) s 43(2). Because Australia is a party to certain international intellectual property conventions (for example the *Patent Co-operation Treaty 1970*) the filing of a patent in another country may also give rise to a priority date.

in the relevant art' would consider them as a single source of information.³⁷ It also includes the specifications of other patent applications with an earlier priority date. This definition of prior art base applies to both novelty and inventive step (or in the case of an innovation patent, innovative) step.

The inventor must be extremely careful not to disclose the invention (i.e. reveal how the invention works) in any way to the public before the priority date as this will mean it has been anticipated and has become part of the prior art base, thereby failing the requirement for novelty. Where only a few individuals are concerned this can be prevented by ensuring any such disclosure only takes place when there is a binding confidentiality agreement between the inventor and the person or people to whom the invention is disclosed. An agricultural case illustrating the point relating to anticipation generally is *Van der Lely NV v Bamfords Ltd* [1963] RPC 61 where the photograph of a mechanical hay rake in a magazine was held to have disclosed the novel feature of the invention (an example of a documentary disclosure). This would have been avoided if the picture had not revealed sufficient detail for the product to be copied.³⁸

One of the first things a patent attorney will do is to advise on issues relating to anticipation. The inventor will be implored not to give in to the temptation to show off (at least until the priority date has been established) as this may result in a disclosure that anticipates the invention. An important role of a patent attorney is to search the prior art base, a skill which the average inventor does not have, or does not have the time to do with the necessary efficiency to ensure that the invention is both novel and inventive (or innovative) as required for validity.

Inventive step

The second aspect of s 18(1)(b) is the inventive step. Section 7(2) elaborates further on the inventive step, saying:

[A]n invention is to be taken to involve an inventive step when compared with the prior art base unless the invention would have been obvious to a person skilled in the relevant art in the light of the common general knowledge as it existed in the patent area before the priority date of the relevant claim ...

Therefore the invention must represent a real advance on what has gone before. Aickin J in the High Court spoke of the 'common general knowledge' as follows:

The notion of common general knowledge itself involves the use of that which is known or used by all those in the relevant trade. It forms the background knowledge and experience which is available to all in the trade in considering the making of new products, or the making of

³⁷ Section 25 of the *Acts Interpretation Act 1901* (Cth) gives the following as part of the definition of 'document': '(c) any article or material from which sounds, images or writings are capable of being reproduced with or without the aid of any other article or device'. This could be taken to include computer databases.

³⁸ See also *Windsurfing International Inc v Petit* [1984] 2 NSWLR 196.

improvements in old, and it must be treated as being used by an individual as a general body of knowledge.³⁹

This can be difficult to prove. If the matter of whether or not the invention demonstrates the necessary inventive step reaches the court system, the requirement for expert witnesses skilled in the relevant art, and the evaluation of complex technical information, is both costly and time consuming.⁴⁰ Again a patent attorney, with a background in science or engineering, can make an informed assessment of this concept at an early stage. The innovative step necessary for an innovation patent ‘will require an inventive contribution lower than that required to meet the inventive step threshold set for standard patents’.⁴¹

Usefulness

Section 18(1)(c) requires that the patent be ‘useful’, which simply means that if the instructions in the specification are carried out the patent will in fact do whatever it is that is claimed therein, in other words it works. The patent does not have to be commercially or socially useful. A patent attorney, practiced in such matters, can ensure the specification is sufficiently explanatory, whereas the inventor may have difficulty in expressing difficult technical concepts in words that will satisfy this requirement.

Secret use

Section 18(1)(d) makes ‘secret use’ a basis of invalidity. This is to prevent an inventor from gaining a longer monopoly period than that given in the legislation, such as secretly using the invention until it seems likely that others may come up with the same invention and only then taking out a patent.⁴² Section 9 of the Act allows some exceptions; these are reasonable trials or experiments, where the invention is used solely in the course of a confidential disclosure, where the use is for any purpose other than the purpose of trade or commerce, or for a disclosure to the Commonwealth, State or Territory.

Exceptions to patentability

Other than the exclusions to patentability discussed in the previous section, such as mere discoveries and those in ss 18(2) and 18(3), there are more in s 50 (applicable to standard patents) and s 101B(2)(d) (applicable to innovation patents). These include, *inter alia*, an invention that is contrary to law, or is a substance that may be used as a food or medicine. There is a further exclusion provided in s 18 of the Act (because of the reference to s 6 of the Statute of Monopolies), and this is that no patents should be granted

³⁹ *Minnesota Mining & Manufacturing Co v Beiersdorf (Aust) Ltd* (1980) 144 CLR 253, at 292 per Aickin J.

⁴⁰ McKeough et al, above n 6, 355.

⁴¹ *Revised Explanatory Memorandum to the Patents Amendment (Innovation Patents) Bill 2000*, para 6.

⁴² See, for example, *Azuko Pty Ltd v Old Digger Pty Ltd* [2001] FCA 1079.

that are ‘generallie inconvenient’.⁴³ The courts have taken this to exclude patents that relate to ‘common activities or procedures’.⁴⁴

Ownership

Section 29(1) of the Act says that ‘a person’ may apply for a patent and s 29(5) says for the purposes of this section a ‘person’ includes a body of persons whether incorporated or not. While any person may apply for a patent, s 15, which is headed ‘Who may be granted a patent?’, confines the grant of a patent to the following: a person who is the inventor, or who would be entitled to have the patent assigned to him or her, or who obtains title from either of the above, or the legal representative of a deceased person who had been in one of the above categories.⁴⁵ The grantee in the second category above may be the employer of the inventor (and this may be a corporation), because work done in the course of employment under a contract of service belongs to the employer. It should be noted that the Act is silent as to the situation where an ‘employee’ develops an invention during the course of his or her employment. As a result the terms of the employment contract, or common law rules, will have a bearing on determining ownership of that invention.⁴⁶

Section 16 permits co-ownership where there are two or more patentees. Each is entitled to an equal undivided share, and each is entitled to exercise the exclusive rights given by the patent (in other words make use of it). However, the consent of all co-owners must be obtained for any assignment or licensing of the patent.⁴⁷

The Act provides that the owner of the patent is given exclusive rights to exploit the invention, or to authorise exploitation by another person.⁴⁸ Schedule 1 of the Act defines ‘exploit’ to include the making, hiring, selling or otherwise disposing of a product, or using the method or process where the patent is for a method or process. These exclusive rights are regarded as personal property and may be assigned (sold) in the same way as other personal property. The assignment must be in writing and signed ‘by or on behalf of the assignor and assignee’.⁴⁹ Often inventors assign the rights to a corporation for development and commercialisation; many patents are therefore owned by corporations rather than by individual inventors.

Revocation

A patent may be revoked by the Commissioner or by the court acting on a petition by the minister or any other person. In an action for infringement of the patent by the grantee, the defendant may counter-claim

⁴³ The spelling comes from s 6 of the Statute of Monopolies.

⁴⁴ A. Fitzgerald & B. Fitzgerald, *Intellectual Property in Principle* (2004) 283.

⁴⁵ *Patents Act 1990* (Cth) s 15(1)(a)(b)(c)(d).

⁴⁶ See, for example, the decision in *Electrolux v Hudson* [1977] FSR 312.

⁴⁷ *Patents Act 1990* (Cth) s 16(1)(a)(b)(c).

⁴⁸ *Patents Act 1990* (Cth) s 13(1).

⁴⁹ *Patents Act 1990* (Cth) s 13(2), s 14(1) (the quote is from s 14(1)).

for revocation.⁵⁰ Section 138(3) sets out the grounds for revocation, including, for example, the patentee is not entitled or the invention is not a patentable invention, or that it was obtained by fraud. The requirements of s 18 will be tested again during revocation. It is possible that although the invention has passed the tests relating to novelty at the examination stage, it fails here because the party interested in seeing it revoked has access to more, or different, 'prior art' publications than the Patent Office. It is at this point too that the patent may be revoked for secret use because the party interested in seeing it revoked is privy to information not available to the Patent Office.

Infringement

In the case of a standard patent, proceedings for infringement can only be initiated when the patent is granted, and in the case of an innovation patent when the patent has been certified.⁵¹ The party bringing the action for infringement will have to show that they are the owner or exclusive licensee of the patent, but for the latter situation the exclusive licensee must join the patentee as either a co-defendant or co-plaintiff. Infringement occurs when the defendant does something that is within the exclusive rights granted to the patentee 'to exploit the invention'.⁵² In an infringement action a defendant may counter-claim for revocation of the patent.⁵³

Remedies

Section 122 provides the remedies for infringement, and these are injunction and either damages or an account of profits. There is discretion under s 123(1) (s 123 is headed 'Innocent infringement') for a court to 'refuse to award damages, or to make an order for an account of profits', where the defendant can show a lack of awareness that a patent existed.

Conclusion

People involved in the agricultural industry often have to improvise so it is possible that an improvisation may in fact be an invention worth patenting, and this would bring in some useful extra money. The examples given at the beginning of this article also illustrate that the possibilities are limitless, and not just confined to the likes of farming machinery. The downside of the patents regime is that it is a very complicated and technical process, and navigating through the requirements is difficult. The best advice is to seek the guidance of a registered patent attorney from the outset as the cost involved will be money well spent. In the meanwhile resist the urge to talk about the invention, and certainly do not demonstrate it to anyone without a carefully constructed confidentiality agreement in place.

⁵⁰ *Patents Act 1990* (Cth) s 138 and s 121 respectively.

⁵¹ *Patents Act 1990* (Cth) s 57(3), s 120(1A).

⁵² *Patents Act 1990* (Cth) s 13(1); the Schedule 1 definition of exploit is mentioned under the heading of 'Ownership' in this paper.

⁵³ *Patents Act 1990* (Cth) s 121.