

Study unit 4

How can a patented invention be exploited?

Overview

In this study unit you will be introduced to various aspects of the exploitation of patented inventions. You will see how what rights are granted to a patentee, and how, and by whom, these rights may be exercised.

Learning outcomes

- After completion of this study unit, you should be able to —
- ☐ determine the rights granted to a patentee in respect of her patented invention
 - ☐ understand patent licensing, in particular the differences between voluntary licences, non-voluntary licences, and licences of right
 - ☐ understand the assignment, attachment, and hypothecation of patents

Setting the scene

Look again at the episode we described in ‘Setting the scene’ in Study Unit 1. Assume that Vusi has obtained a product patent for his cream, and that Vusi and Thandi have obtained a process patent for the computerized manufacturing process. As Vusi and Thandi have little experience of the business world and very little money to invest in a business, they have to raise money to enable them to exploit their inventions themselves, or they have to enter into agreements with someone who may want to exploit these inventions. How should Vusi and Thandi go about this?

Discussion

Rights granted to the patentee

Generally, a patentee is legally entitled to decide who may, and who may not, exploit her patented invention. She retains this

right for the term of the patent, provided that she pays the necessary renewal or maintenance fees.

As for the actual content of the right granted to patentee, article 28.1 of the TRIPS Agreement states:

'A patent shall confer on its owner the following exclusive rights:

product patent

(a) where the subject matter of a patent is a product, to prevent third parties not having the owner's consent from the acts of: making, using, offering for sale, selling, or importing for these purposes that product;

process patent

(b) where the subject matter of a patent is a process, to prevent third parties not having the owner's consent from the act of using the process, and from the acts of: using, offering for sale, selling, or importing for these purposes at least the product obtained directly by that process.'

Section 45(1) of the South African Patents Act accordingly states:

'The effect of a patent shall be to grant to the patentee in the Republic, subject to the provisions of this Act, for the duration of the patent, the right to exclude other persons from making, using, exercising, disposing or offering to dispose of, or importing the invention, so that he or she shall have and enjoy the whole profit and advantage accruing by reason of the invention.'

exclusive right

The right of the patentee is *exclusive* in the sense that it allows the patentee to exclude others from exploiting the invention. In practice, the exclusive right of the patentee has two main applications:

- ☐ protection against infringement (see further Study Unit 5); and
- ☐ the possibility of assigning or licensing the right, in whole or in part.

assign and license

The second application is expressly stated in article 28.2 of the TRIPS Agreement: it grants the patentee 'the right to assign, or transfer by succession, the patent and to conclude licensing contracts'.

The right of the patentee to her invention is usually limited in a number of ways:

claims

- ☐ The claims which define the patent monopoly may be subject to amendment or invalidation by the courts in respect of defects that were not detected before the patent was granted.

dependent patent

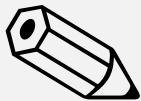
- ☐ Where the invention improves on or develops an earlier invention still subject to a current patent, the patentee may need to obtain a licence under the earlier patent — it is quite possible for a later invention to be *patentable*, because it comprises particular or specific new and inventive features, and yet it may still fall within the ambit of an earlier, more general, or wider patent. See further the discussion of non-voluntary licences in respect of dependent patents below.

working the invention

- ☐ The patentee's right is usually limited by law. For example, the patentee is required to work her invention to a certain extent if she wants to retain her monopoly. If she does not, a non-voluntary licence may be granted. See further the discussion of non-voluntary licences for abuse of rights below. Also, section 45(2) of the South African Patents Act states that the authorized sale of 'a patented article ... shall, subject to other patent rights, give the purchaser the right to use and dispose of that article'.

State use

- ☐ The State, or third parties authorized by the State, may in certain circumstances in the public interest use the invention on terms fixed by agreement or by the courts.



Activity 4.1

In your Patents Act —

- ☐ determine which rights are granted to a patentee
- ☐ determine whether, in this regard, a distinction is made between product patents and process patents
- ☐ determine whether those rights comply with the requirements of article 28.2 of the TRIPS Agreement

Voluntary licences

It is not necessary for the patentee herself to exercise her right to make, use, exercise, and dispose of her invention, or to prevent others from doing so. She may consent to others exercising these rights and require of them, in return, payment of a sum in remuneration (a royalty). This is the essence of patent licencing agreements.

*exclusive and non-exclusive
licences*

As a matter of law, there is only one distinction of any significance here — exclusive and non-exclusive licences. The *exclusive* licence — in terms of which the licensor undertakes not only to grant no other licences but also not to manufacture or sell within the licensed territory — empowers the licensee to sue for patent infringement.

freedom of contract

In legal systems espousing the principle of freedom of contract, the parties to patent licences and assignments are usually free to determine the scope and nature of their obligations by mutual agreement. On occasion, though, Parliament may intervene. Section 57 of the South African Patents Act, for example, provides for the termination of contracts relating to licences where the patent under which a licence was granted expires, whilst section 58 relates to the effect of a patent licence: unless the parties have agreed otherwise,

- ❑ a licence to make a patented article carries with it the right to use or dispose of the patented article, whilst
- ❑ a licence to use or exercise a patented process carries with it the right to make, use, or dispose of the product of the process.

anti-competitive behaviour

Patent licences may, of course, lead to anti-competitive behaviour. It is for this reason also that legislators sometimes interfere with the parties' freedom of contract. Section 90 of the South African Patents Act, for example, states that certain conditions in a patent licence will be null and void. They include any condition in a patent licence, the effect of which will be —

- ❑ to prohibit or restrict the licensee from purchasing or using any article or class of articles, whether patented or not, supplied or owned by any person other than the

- licensor;
- ☐ to prohibit or restrict the licensee from using any article or process not protected by the patent;
- ☐ to require the licensee to acquire from the licensor any article or class of articles not protected by the patent; or
- ☐ to prohibit or restrict the making, using, exercising, or disposing of the invention concerned in any country in which the invention is not patented.

But in two exceptional circumstances restrictive terms are allowed in a licence agreement:

- ☐ where the term or condition prohibits the licensee from selling any goods other than those of the patentee; and
- ☐ where the term or condition reserves for the licensor the right to supply new parts for the patented article.

Non-voluntary licences

In the case of non-voluntary (also known as ‘compulsory’) licences, the licensee is entitled to perform acts covered by the exclusive right under authority given by the State against the will of the relevant patentee.

TRIPS requirements

Article 31 of the TRIPS Agreement states that where legislation allows the use of a patented invention without the authorization of the patentee, including use by the State or third parties authorized by the State, the following requirements should be satisfied:

- ☐ authorization of such use should be considered on its individual merits;
- ☐ such use may be permitted only if, prior to such use, the proposed user has made efforts to obtain authorization from the patentee on reasonable commercial terms and conditions, and such efforts have not been successful within a reasonable period (exceptions to this principle apply in the cases of national emergencies or other circumstances of extreme urgency, or public non-commercial use);
- ☐ the scope and duration of such use should be limited to the purpose for which it was authorized;
- ☐ such use should be non-exclusive;
- ☐ such use should be non-assignable, except with that part of the enterprise or goodwill which enjoys such use;

- ❑ any such use should be authorized predominantly for the supply of the domestic market of the country whose government authorizes such use;
- ❑ authorization for such use should be liable, subject to adequate protection of the legitimate interests of the persons so authorized, to be terminated if and when the circumstances which led to it cease to exist and are unlikely to recur;
- ❑ the patentee should be paid adequate remuneration in the circumstances of each case, taking into account the economic value of the authorization;
- ❑ the legal validity of any decision relating to the authorization of such use should be subject to judicial review or other independent review by a distinct higher authority in that country;
- ❑ any decision relating to the remuneration provided in respect of such use should be subject to judicial review or other independent review by a distinct higher authority in that country; and
- ❑ countries are not obliged to apply the conditions in the second and sixth items where such use is allowed to remedy a practice determined after judicial or administrative process to be anti-competitive (the need to correct anti-competitive practices may be taken into account in determining the amount of remuneration in such cases).

royalties

The grant of a non-voluntary licence does not mean that the licensee need not pay royalties. National laws dealing with this issue usually require that the licensee make certain payments to the patentee for working the invention.

Two categories of non-voluntary licences are usually distinguished:

public interest

- ❑ Some countries provide for the grant of non-voluntary licences where it is deemed necessary in the public interest, such as for public welfare (including health) and the development of the economy.

prevent abuse

- ❑ Some countries provide for the grant of non-voluntary licences to prevent the abuse which may flow from the exercise of the exclusive right (monopoly) conferred by a patent.

Non-voluntary licences in the public interest

Generally, these licences can be divided into two sub-categories:

- ☐ those granted in favour of private parties, and
- ☐ those granted in favour of the State.

dependent patents

The best example of the former is in the case of *dependent patents*. When a patentee cannot exploit her patent without infringing an earlier patent and she cannot obtain a licence under that patent, she may apply to the competent authority for a licence under that patent.

Article 31(l) of the TRIPS Agreement states that where legislation allows, without the patentee's authority,

- 'the exploitation of a patent ("the second patent") which cannot be exploited without infringing another patent ("the first patent"), the following additional conditions shall apply:
- (i) the invention claimed in the second patent shall involve an important technical advance of considerable economic significance in relation to the invention claimed in the first patent;
 - (ii) the owner of the first patent shall be entitled to a cross-licence on reasonable terms to use the invention claimed in the second patent; and
 - (iii) the use authorized in respect of the first patent shall be non-assignable except with the assignment of the second patent.'

Section 55 of the South African Patents Act, for example, provides that such a licence may be granted on such conditions as the Commissioner thinks fit, but it should always include a condition that the licence may be used only for the purpose of exploiting the invention covered by the dependent patent. Also, in line with article 31(l) of the TRIPS Agreement, the Commissioner may not grant such a licence unless —

technical advance

- ☐ the invention claimed in the dependent patent involves an important technical advance of considerable economic significance in relation to the invention claimed in the earlier patent;

cross-licence

- ☐ the proprietor of the dependent patent granted the proprietor of the earlier patent on reasonable terms a cross-licence to use the invention claimed in the dependent patent; and

- ☐ the use authorized in respect of the earlier patent cannot be assigned except with the assignment of the dependent patent.

public interest

A number of countries also allow the State to exploit inventions, without the patentee's consent, in the public interest. There are typically three fields in which this may occur:

- ☐ national defence,
- ☐ national economy, and
- ☐ public health.

This kind of measure is particularly suited to national emergencies. Take the example of medical equipment. It may be necessary to import such equipment very quickly in the event of a sudden epidemic. If the patentee is not willing to import or conclude a licence agreement for importation on reasonable terms, the State may decide to ask another person to import the equipment, or may import it itself. Once the epidemic has been brought under control, there is no reason to maintain the measure. The patentee will then recover full control of the rights attaching to the patent.

Non-voluntary licences to prevent abuse of rights

Article 5A(2) of the Paris Convention expressly sanctions granting non-voluntary licences in the event of the abuse of rights:

‘Each country of the Union shall have the right to take legislative measures providing for the grant of compulsory licenses to prevent the abuses which might result from the exercise of the exclusive rights conferred by the patent, for example, failure to work.’

The Convention provides further:

- ☐ Forfeiture of the patent should be provided for only where the grant of compulsory licenses would not have been sufficient to prevent abuse (article 5A(3)).
- ☐ No proceedings for the forfeiture or revocation of a patent may be instituted before the expiration of two years from the grant of the first compulsory license.

- ❑ No application may be filed for a compulsory license on the ground of failure to work or insufficient working before the expiry four years from the date of filing the patent application, or three years from the date of granting the patent, whichever period expires last (article 5A(4)). National law may, of course, set a later time limit. This time limit recognizes that it may take some time for the patentee to begin working the patented invention in each country where she has obtained patent protection. The application should be refused if the patentee justifies her inaction by legitimate reasons. They may include that legal, economic, or technical obstacles prevent working, or working more intensively, the invention in a particular country.
- ❑ Such a compulsory licence should be non-exclusive and not-transferable (even in the form of a sub-licence), except with that part of the enterprise or goodwill which exploits such licence. The patentee must retain the right to grant other non-exclusive licences and to work the invention herself. Also, because the licence is linked to that enterprise on the basis of its known capacities, it cannot be transferred separately from that enterprise. These limitations are intended to prevent a non-voluntary licensee from obtaining a stronger position in the market than is warranted by the purpose of the compulsory licence — to ensure sufficient working of the invention in the country.

working an invention

While the definition of ‘working’ is a matter for national law, it usually means at least making the patented product, or using the patented process. While some countries expressly provide that importing a product that includes the invention does not constitute working, the current trend is away from this requirement. Generally, the working requirement can be fulfilled through the working of the patented invention by the patentee or a licensee.

transfer of technology

Some countries believe, however, that the patented invention should be worked in the country where a patent is granted, so that the patent not only serves as an exclusive right to prevent others from doing so or to control importation. The principal goal of requiring local working of a patented invention is the transfer

of technology — the actual working of a patented invention in a given country is seen as the most efficient way of achieving such a transfer to that country. There are two arguments against compulsory working of an invention in a particular country:

know-how

- ❑ Such compulsory working may work against the goal of transferring technology. Non-voluntary licences are said to be less effective than voluntary licensing in encouraging the transfer of technology. It is argued that such transfer is best done in an atmosphere of cooperation between the patentee/transferor and the licensee/transferee. That cooperation usually entails disclosure of non-patented know-how that is needed to make a commercially viable product but which was not necessary to satisfy the disclosure requirement for obtaining the patent. With a non-voluntary licence, this atmosphere of cooperation is absent, so that there is unlikely to be any disclosure of non-patented know-how.

economic and trade factors

- ❑ It may not be economically feasible to require a patentee to manufacture products in accordance with her patent in every country where she has obtained patent protection. Such a requirement does not take into account regional or international integration of markets, or comparative advantages of countries or regions. For example, products incorporating a patented invention, or made by a patented process, may be made cheaper if production is consolidated in one country, with the demand in other countries being met by importation. Also, individual components of a product, which are themselves protected by patents, may best be manufactured in several countries or regions, with the final assembly being done in one facility or on a regional basis.

Two arguments are usually raised to counter these criticisms:

- ❑ Countries which provide for non-voluntary licences in these circumstances find that they are rarely applied for and more rarely granted. So they are of little practical importance.
- ❑ These provisions do serve as a legal incentive to encourage a patentee more readily to enter into a

voluntary licence agreement.

Section 56 of the South African Patents Act accordingly provides for non-voluntary licences in the case of abuse of patent rights. These rights are deemed to be abused if —

- ❑ the patented invention is not being worked in South Africa on a commercial scale or to an adequate extent, after the expiry of four years from the date of the patent application, or three years from the date of sealing the patent, whichever is the longer period, and there is in the opinion of the Commissioner no satisfactory reason for such non-working;
- ❑ the demand for the patented article in South Africa is not being met to an adequate extent and on reasonable terms;
- ❑ by reason of the refusal of the patentee to grant a licence upon reasonable terms, the trade, industry, or agriculture of South Africa, or the trade of any person or class of persons trading in South Africa, or the establishment of any new trade or industry in South Africa, is being prejudiced, and it is in the public interest that a licence be granted; or
- ❑ the demand in South Africa for the patented article is being met by importation and the price charged by the patentee for the patented article is excessive in relation to the price charged for it in countries where the patented article is manufactured by or under licence from the patentee.

procedure

Application for a compulsory licence is made to the Commissioner. The patentee or any other person who appears from the register to be interested in the patent may oppose the application (section 56(3)). The Commissioner considers the application on its merits and determines whether a compulsory licence should be granted. Upon granting a licence, she may impose such conditions on the grant as she deems fit, including a condition precluding the licensee from importing any patented articles into South Africa (section 56(4)). When determining the conditions on which a licence should be granted, the Commissioner must have regard to all relevant facts, such as the risks to be undertaken by the licensee, and the research and development already undertaken by the patentee (section 56(7)). Also, the licence should include a provision that, subject to adequate protection of the legitimate interests of the licensee,

the licence shall be terminated, on application by the patentee, if the circumstances which led to its grant cease to exist and, in the Commissioner's opinion, are unlikely to recur (section 56(4)).

The Commissioner may subsequently amend or revoke any compulsory licence granted by her (section 56(9)).

non-exclusive

Any licence granted under this section is non-exclusive and cannot be transferred except to a person to whom the business, or part of the business, in connection with which the rights under the licence are exercised, has been transferred (section 56(5)). The compulsory licensee has, subject to the conditions attaching to the grant of the licence, the same rights and obligations as any other licensee under a patent.

Licences of right

endorsement

Section 53 of the South African Patents Act authorizes the patentee to apply to the Registrar at any time after the sealing of the patent to have the words 'licences of right' endorsed on the patent. When such an application is made, the Registrar must so endorse the patent, unless she is satisfied that the patentee is precluded by contract from granting licences under the patent. Such a contract may, for example, be one in terms of which the patentee obtained the invention and which forbids her to grant licences.

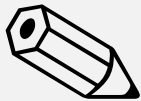
The consequence of such endorsement is set out fully in section 53(2). After endorsement, any person may then take out a licence under the patent subject to the conditions agreed upon between herself and the patentee, or, in default of such an agreement, upon conditions fixed by the Commissioner. The licensee is also entitled to call upon the patentee to institute proceedings in the event of any infringement of the patent; if the patentee fails to do so within two months of being so called upon, the licensee may herself institute proceedings.

One may well ask why the Act should make provision for these licences of right. There are three reasons for doing so:

- ❑ The renewal fees payable in respect of a patent so endorsed are diminished by half (section 53(2)(d)).

- ❑ The endorsement which is also entered in the register of patents (besides being entered on the Letters Patent), serves as an invitation to interested parties to obtain licences under the patent — interested parties become 'entitled as of right' to acquire such a licence (section 53(2)(a)).
- ❑ If an action for the infringement of the patent is instituted, no interdict will be granted against the defendant if she undertakes to acquire a licence on such terms as the Commissioner may determine (section 53(2)(c)). Such a licence authorizing the continued exploitation of the patented invention, instead of an interdict, naturally provides the patentee with continued financial compensation.

From the above it is clear that the endorsement of a patent in terms of section 53 would be beneficial particularly in those cases where the patentee herself does not exploit the invention, at least not on a large scale. Such an endorsement can be cancelled later (section 54).



Activity 4.2

In your Patents Act —

- ❑ determine whether provision is made for non-voluntary licences
- ❑ if provision is made, determine under what circumstances a non-voluntary licence may be granted
- ❑ determine the procedure to be followed to obtain a non-voluntary licence
- ❑ determine whether the provisions in your Act comply with the substantive and procedural requirements of the TRIPS Agreement

Reading 4.1



Study *Syntheta (Pty) Ltd (formerly Delta G Scientific (Pty) Ltd) v Janssen Pharmaceutica NV & another* 1999 (1) SA 85 (SCA). Ask yourself the following questions when you read this decision:

- ☐ On what grounds did the applicant apply for a compulsory licence?
- ☐ What jurisdictional facts had to be established in respect of each ground?
- ☐ Who bore the burden to establish these jurisdictional facts?
- ☐ Did the applicant in the present case discharge this burden?
- ☐ What factors should be considered in the calculation of an appropriate royalty?

Activity 4.3



Vusi and Thandi cannot find sufficient funding to enable them to set up a production facility in South Africa. It also transpires that they import the active ingredient of the cream — the powder from the milk culture — from Kenya. Consider the following *separate* situations:

- ☐ Thembi approaches Vusi and Thandi for a licence to manufacture and sell the cream. He proposes to use Vusi's patented formula and Thandi's patented process. Vusi and Thandi approach you for advice on what factors they should consider in respect of granting the licence, generally, and setting the royalty amount, in particular.
- ☐ Prudence approaches the Commissioner for a compulsory licence under section 56. She makes it clear that she does not seek a licence to sell the cream for use in South Africa. Instead, she wants to manufacture the

cream in South Africa only to export it to countries in Africa where there is no corresponding patent. She believes that the success of this venture is crucial to the survival of her own business.

Discussion

Assignment, attachment, and hypothecation of patents

transfer and devolution

Patents (and patent applications) may be freely transferred by assignment, disposed of by will, or devolve on intestacy. On the patentee's insolvency, they form part of the insolvent estate administered by the trustee. The most important exception to the principle of free transferability is a patent of addition: a patent for a main invention and its patent of addition usually cannot be assigned apart from one another (see, for example, section 39(7) of the South African Patents Act).

writing and recording

It is usually provided that a patentee may, in writing, assign her rights in a patent; the same applies to an applicant for a patent in respect of the rights in an application (see, for example, sections 59(1) and 60(1) of the South African Patents Act). Unless an assignment is also recorded in the patent register, it will be valid only between the parties to the assignment (section 60(1)).

employment contracts

Contracts of employment often contain assignments in favour of the employer. Mindful of the unequal bargaining power of the parties, legislation often tries to curb any possibility of unreasonable terms being imposed on employees. For example, section 59(2) of the South African Patents Act states:

- 'Any condition in a contract of employment which —
- (a) requires an employee to assign to his employer an invention made by him otherwise than within the course and scope of his employment; or
 - (b) restricts the right of an employee in an invention made by him more than one year after the termination of the contract of employment,
- shall be null and void.'

moveable incorporeal property

A patent is by legal nature moveable incorporeal property, and as such an asset in the estate of the patentee. For this reason a

patent can be used as security for money loans, for example, and it can be attached in execution of a judgment debt.

hypothecation

attachment

As an example of the former, section 60(5) of the South African Patents Act provides that the hypothecation of a patent or patent application can be registered in the patent register. The Act also provides for the attachment of a patent or patent application by registration of the attachment order in the patent register. Such an attachment lapses after three years unless it is renewed (section 60(2)–(4)).

Once an attachment or hypothecation has been recorded, the patentee cannot alienate or encumber the patent or patent application, or grant licences under it (section 60(6)).

Conclusion

You should now appreciate that a patent confers strong exclusive rights on a patentee, and that for this reason it is a significant economic asset in the patentee's estate. The patentee can exploit the invention herself, or authorize others to do so. The latter is done through licensing or assignment. But, in the public interest, the legal system also curbs the monopoly given to the patentee. One limiting mechanism is the availability of compulsory licences.