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Patent Office

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MANUAL OF PATENT OFFICE PRACTICE

FOREWORD

Welcome to the *Manual of Patent Office Practice* (MOPOP), a guide for patent examiners, applicants, agents and the public to the operational procedures and examination practices of the Canadian Patent Office.

Practices expressed in the MOPOP arise from the Office's interpretation of the *Patent Act*, *Patent Rules* and jurisprudence as of the date each chapter came into effect.

This manual is solely a guide and should not be considered to be a binding legal authority. In the event of any inconsistency between this guide and the applicable legislation, this legislation must be followed.

The manual will be updated periodically to reflect changes to the statutory, regulatory and jurisprudential framework governing patents in Canada. The revision date of a chapter is March 1998 unless otherwise indicated, and is listed on the Canadian Intellectual Property Office's web site at:

http://strategis.ic.gc.ca/sc_mrksv/cipo/patents/mopop/mopop-e.html.

Please note that the current version of the MOPOP does not cover all practices relating to the prosecution of applications filed prior to October 1, 1989.

Information regarding forthcoming updates to this manual, including periods of public consultation, may be found at:

http://strategis.ic.gc.ca/sc_mrksv/cipo/patents/mopop/mopop_dnld-e.html.

Comments, feedback and suggestions relating to the MOPOP should be directed to:

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Fax: 819-994-1989

Mary Carman
Commissioner of Patents
January 2009

Chapter List

Chapter 1
Contacting the Patent Office

1.01 Location of the Patent Office

The Patent Office is located at Place du Portage I, 50 Victoria Street, Gatineau, Quebec. The general contact telephone numbers of the Patent Office are:

CIPO's Client Service Centre (General information):
Tel.: 1 866 997-1936 (TTY: 1 866 442-2476)
Fax: (819) 953-7620

CIPO's Mailroom:
Tel.: (819) 997-1727
Business hours: from 8:30 a.m. to 5:00 p.m. (EST), Monday to Friday

Finance:
Tel.: (819) 994-4682

1.02 Correspondence in person or by mail

All mail correspondence[1] for the Commissioner of Patents or for the Patent Office should be addressed to:

The Commissioner of Patents
Canadian Intellectual Property Office
Place du Portage I
50 Victoria Street, Room C-114
Gatineau QC K1A 0C9

All such correspondence addressed to the Commissioner may also be physically delivered to the Registered Mail Service of Canada Post, or any designated establishment as identified in the *Canadian Patent Office Record* [2] (CPOR). These designated establishments are:

1. Industry Canada
   C.D. Howe Building
   235 Queen Street, Room S-117
   Ottawa ON K1A 0H5
   Tel.: (613) 990-4582

2. Industry Canada
   5 Place Ville-Marie, Suite 700
   Montreal QC H3B 2G2
   Tel.: (514) 496-1797
   Toll-free: 1 888 237-3037

3. Industry Canada
   151 Yonge Street, 4th Floor
   Toronto ON M5C 2W7
   Tel.: (416) 973-5000

4. Industry Canada
   Canada Place
   9700 Jasper Avenue, Suite 725
   Edmonton AB T5J 4C3
   Tel.: (780) 495-4782
   Toll-free: 1 800 461-2646

5. Industry Canada
   Library Square
   300 West Georgia Street, Suite 2000
   Vancouver BC V6B 6E1
   Tel.: (604) 666-5000

Correspondence delivered during ordinary business hours to the Patent Office, anywhere other than at CIPO's mailroom (C-114), will only be considered to be received on the day it is delivered to CIPO's mailroom and date stamped.

1.03 Electronic correspondence

Correspondence sent electronically by facsimile or online in accordance with section 8.1 of the *Patent Act* constitutes the original; therefore, a duplicate paper copy should not be forwarded.

1.03.01 Facsimile transmissions

The Patent Office accepts facsimile transmissions in respect of applications or other correspondence. Facsimiles have to be addressed to the Commissioner using the following numbers[3] (facsimile equipment of CIPO's mailroom):

(819) 953-CIPO (953-2476) or
(819) 953-OPIC (953-6742)

The electronic transmittal report will constitute the acknowledgement that the correspondence has been received.

Facsimile correspondence which is sent to any facsimile number other than those indicated above, including those of a designated establishment, will be considered not to have been received.

When submitting a document by facsimile that also has a fee requirement, notification of the preferred mode of payment to be applied should be prominently displayed on the covering letter to ensure expedient processing.

1.03.02 Online correspondence via CIPO's website

Online correspondence addressed to the Commissioner for filing patent applications may be sent electronically via CIPO's website to the following addresses[4]:

https://strategis.ic.gc.ca/sc_mrksv/cipo/patbrev-filing/application/engdoc/pt_filing_form-e.html

or in French to:

https://strategis.ic.gc.ca/sc_mrksv/cipo/patbrev-filing/application/frndoc/pt_filing_form-f.html

Any other correspondence addressed to the Commissioner relating to applications and patents (e.g. fee payments, registering documents, requesting national entry of an international application), may be sent electronically via CIPO's website at the following addresses:

https://strategis.ic.gc.ca/sc_mrksv/cipo/patbrev-filing/application/engdoc/pt_correspondence-e.html

or in French to:

https://strategis.ic.gc.ca/sc_mrksv/cipo/patbrev-filing/application/frndoc/pt_correspondence-f.html

The document presentation requirements related to sections 69 and 70 of the *Patent Rules* apply to electronically submitted correspondence, including facsimiles. The acceptable file formats for documents submitted electronically via CIPO's website, such as assignments or specifications are: multi-page TIFF CCITT Group 4, black and white, at 300 DPI, or in PDF format. Sequence listings will have to be provided in both a multi-page TIFF or PDF file and in an ASCII file. Documents received electronically that do not meet these requirements will have to be replaced and submitted in an acceptable format.

1.04 Date of reception

In accordance with the above:

- Mail intended for the Patent Office and delivered, during business hours, to CIPO's offices in Gatineau will be accorded the date of reception by CIPO.

- Mail intended for the Patent Office and delivered, during business hours, to one of Industry Canada's regional offices listed in section 1.02, will be considered to be received on the date of reception in that office, only if it is also a day on which CIPO's offices in Gatineau are open. Mail delivered to a regional office on a day

when CIPO's offices in Gatineau are closed will be considered to be received on the next working day for CIPO. If, for example, mail intended for the Patent Office is delivered to Industry Canada's regional office in Toronto on June 24, it will not be considered to be received on June 24 as this is a day on which CIPO's offices in Gatineau are closed. Mail delivered to regional offices on June 24 will be considered to be received on the next working day for CIPO.

- Mail intended for the Patent Office and delivered through Canada Post's Registered Mail Service will be considered to be received on the date stamped on the envelope by Canada Post Corporation, if it is also a day on which CIPO's offices in Gatineau are open. If the date stamped on the Registered Mail is a day when CIPO's offices in Gatineau are closed, the mail will be considered to be received on the next working day for CIPO.

- Mail intended for the Patent Office and delivered, by electronic means of transmission, including facsimile, will be considered to be received by the Commissioner on the day that it is transmitted if received before midnight, local time at the Patent Office in Gatineau. When the Patent Office is closed for business, correspondence received on that day will be considered to be received on the next working day.

1.04.01 Filing of a document on statutory holidays (*Dies non*)

In accordance with section 26 of the *Interpretation Act*, any person choosing to deliver a document to a designated establishment, including the Patent Office in Gatineau, an Industry Canada regional office, or a Registered Mail establishment, where a federal, provincial or territorial holiday exists, is entitled to an extension of any time limit for the filing of the document that expires on the holiday, until the next day that is not a holiday. It is to be noted, in respect of provincial and territorial holidays, that the entitlement to the extension is dependent on the establishment to which the document is delivered and not on the place of residence of the person for whom the document is filed or of their agent. For this purpose, documents transmitted to the Patent Office by electronic means, including by facsimile, would be considered to be delivered in Gatineau, Quebec.

Operationally, the Patent Office has no practical way of keeping track of the establishment to which documents are delivered. Accordingly, where a person has a time limit for the filing of a document that expires on a provincial or territorial holiday but only delivers the document on the next day that is not a holiday, the Patent Office will assume that the document was delivered to an establishment that would justify an extension of the time limit. In such circumstances, it will be the responsibility of the person filing the document to ensure that they are properly entitled to any needed extension of the time limit. In doubt, the applicant can contact the Patent Office to get a confirmation of the filing date.

In addition to the extensions of time limits referred to above, in accordance with subsection 78(1) of the *Patent Act*, any patent time limit that expires on a day when the Patent Office is closed for business is deemed to be extended to the next day when the office is open for business. All persons are entitled to these extensions regardless of their place of residence or of the establishment to which documents are delivered.

The Patent Office takes the position that section 26 of the *Interpretation Act* applies to PCT international applications filed in Canada. Accordingly, where a person has a time limit under the PCT for the filing of a document in Canada that expires on a provincial or territorial holiday but only delivers the document on the next day that is not a holiday, the Patent Office will assume that the document was delivered to an establishment that would justify an extension of the time limit. The Patent Office, however, takes no position as to whether such extensions would be recognized by other countries and it will be the responsibility of the person filing the document to ensure that in other countries of interest they are properly entitled to any needed extension of the time limit by reason of rule 80.5 of the *Regulations under the PCT* or some other applicable law.

For the purposes of this chapter, the Patent Office has identified the following as being days that are not federal holidays but that are holidays in one or more provinces or territories:

- **Alberta**: 3rd Monday in February (Alberta Family Day)
- **British Columbia**: 1st Monday in August (British Columbia Day)
- **New Brunswick**: 1st Monday in August (New Brunswick Day)
- **Nova Scotia**: 1st Monday in August (Civic Holiday)
- **Ontario**: 1st Monday in August (Civic Holiday)
- **Quebec**: June 24 (St. John the Baptist Day)
- **Saskatchewan**: 1st Monday in August (Saskatchewan Day)
- **Yukon**: 3rd Monday in August (Discovery Day)

Section 20.04 of MOPOP lists the days that are closed for business for the purposes of subsection 78(1) of the *Patent Act*.

1.05 Interviews

Subject to the conditions imposed by subsection 6(3) of the *Patent Rules*, authorized correspondents, applicants and agents may meet with examiners about pending applications. Appointments must be arranged in advance so that the examiners will be available and prepared to discuss the prosecution of applications. Where an agent has been appointed, the agent must be present at the interview or have authorized it.

Interviews concerning the prosecution of applications, including applications that have received final action, may be requested at any stage of the prosecution and are

conducted by the examiner in charge of the application. At these interviews, the examiners may provide further explanations about the objections they have made in a report or clarify certain points concerning the invention. However, interviews do not replace the normal prosecution of an application, and at these interviews, the examiners should never provide verbal opinions or agree to accept amendments to the specifications before receiving and assessing official correspondence from the applicants.

In the case of an interview with a new examiner in training, a senior examiner or a Patent Office section head must attend. Problems that do not concern the examination process are referred to the appropriate section of the Patent Office.

The Commissioner does not meet with agents or inventors about prosecution issues related to specific applications.

1.06 Client Feedback system

As part of its ongoing commitment to improve its services, the Patent Office encourages feedback from clients. Feedback is invited via CIPO's online Client Feedback system, which is located in the “Contact Us” section of CIPO’s website.

http://napoleon.ic.gc.ca/cipo/internet.nsf/comp-e

Using a simple online form, clients may submit a complaint, comment or compliment. Those wishing to receive a response are invited to include their name and other information. Feedback can also be submitted anonymously.

Where a reply is required, CIPO will provide an initial response within five business days. General matters are handled by CIPO's Client Service Centre. Questions or concerns of a more technical nature are routed to the appropriate subject-matter expert within the Patent Office.

CIPO's online Client Feedback system is intended to help CIPO’s clients to provide comments on its services and to resolve problems where applicable. Feedback is also used to help CIPO better understand how to improve its services.

It is important to note that the Client Feedback system is not intended for the prosecution of an application and cannot be used to respond to an official Patent Office requisition.

1.07 Publications related to Canadian documents

The CPOR is published weekly every Tuesday. It contains a list of all the patent applications open for public inspection and all the patents granted for the week ending with the Tuesday of the publication, and it also contains important notices. Copies of the CPOR are available via CIPO's website at the following addresses:

http://strategis.ic.gc.ca/patents/record

or in French at:

http://strategis.ic.gc.ca/brevets/gazette

Copies of Canadian patents and patent applications open for public inspection, as filed, can be downloaded in Adobe Acrobat format via CIPO's website at the following address:

http://patents1.ic.gc.ca/intro-e.html

or in French at:

http://patents1.ic.gc.ca/intro-f.html

These copies may also be purchased via the Reproduction and Sales Section of CIPO via CIPO's website using the "Order Form" link at the following addresses:

http://strategis.gc.ca/sc_mrksv/cipo/patents/pt_order_doc-e.html

or in French at:

http://strategis.gc.ca/sc_mrksv/cipo/patents/pt_order_doc-f.html

or by contacting:

Reproduction and Sales Section
Canadian Intellectual Property Office
Industry Canada
Place du Portage I
50 Victoria, Room C-229
Gatineau QC K1A 0C9

Tel.: 1 866 997-1936
Fax: (819) 953-9969

Endnotes for Chapter 1

1. For the purposes of subsections 5(2), 5(3), 54(1) and 54(2) of the *Patent Rules*

2. For the purposes of subsections 5(4), 5(5), 54(3) and 54(4) of the *Patent Rules*

3. In accordance with section 8.1 of the *Patent Act* and for the purpose of subsections 5(6), 5(7), 5(8), 54(5), 54(6) and 54(7) of the *Patent Rules*

4. In accordance with section 8.1 of the *Patent Act* and for the purpose of subsections 5(6), 5(7) and 5(8) of the *Patent Rules*

Chapter 2
Opening and inspection of documents

2.01 Inspection of documents

In accordance with Section 10 of the *Patent Act*, all applications that have been opened to public inspection, protests when associated with an opened application file and prior art filed pursuant to Section 34.1 of the *Patent Act* when associated with an opened application file, patents and re-examination files, and all documents associated with any of the above, shall be available for inspection on request in the Patent Office. This information will also be made available via Techsource at designated Industry Canada Offices across Canada.

A patent application open to public inspection will be called "opened" throughout this Manual. A patent application not opened to inspection by the public will be called "unopened" in this Manual.

2.01.01 Opening of applications

All patent applications, except those filed prior to October 1, 1989 and documents on file in connection therewith, shall be open to public inspection after the expiration of an eighteen-month confidentiality period (subsection 10(2) of the *Patent Act*). The confidentiality period is one of

i) eighteen months from the Canadian filing date, or

ii) where a request for priority has been made, eighteen months from the earliest filing date of any previously regularly filed application on which the request is based.

Applications filed under the Patent Cooperation Treaty (PCT) that include a designation for Canada and have not entered the national phase in Canada and documents on file in connection therewith will be available for inspection in the Patent Office as soon as possible after the expiration of eighteen months from the international filing date or the priority date thereof.

In accordance with subsection 10(2) of the *Patent Act*, an applicant may make a written request to have an application opened to public inspection before the expiry of the confidentiality period.

An application will not be laid open to public if it has been withdrawn at least two months prior to the expiration of the confidentiality period or a later date if the technical preparations to open the application to public inspection can be stopped (Sections 91, 92 and 145 of the *Patent Rules*).

A listing of applications opened to public inspection each week will appear in the Canadian Patent Office Record.

PCT applications entering the national phase in Canada after the date of publication by the International Bureau of the World Intellectual Property Organization in English or French will bear, as the laid-open date, the date of publication of the international application. This date will normally be within thirteen days after the expiry of eighteen months from the priority date or filing date of the international application.

2.01.02 Confidentiality of unopened applications

Unopened applications are confidential. Sections 10 and 11 of the *Patent Act* and sections 11, 91 and 92 of the *Patent Rules* apply. The Patent Office is required to protect the interest of the applicant by ensuring that only authorized persons are allowed to inspect unopened files. Individuals authorized to see the file by the applicant or the applicant's agent are permitted to do so. Individual persons, not known to the Patent Office, requesting access to a file must provide evidence that they have the right to see a file. A letter of introduction and authorization from the applicant or the applicant's agent, for example, would suffice. Inventors who have assigned all interest in their invention to others will not have access to the unopened file without authorization from the assignee or agent. If an agent has been appointed and the inventor has retained some interest in the application, the inventor may see the file and discuss the case with the examiner in general terms, but in accordance with subsection 6(3) of the *Patent Rules* an interview including a detailed discussion of the prosecution is permitted only in the agent's presence or with the agent's consent. An examiner will not discuss matters relating to the prosecution of an application with persons other than the agent or those who have the agent's permission to discuss the application.

2.01.03 Effect of withdrawal of priority on opening to public inspection

A request for priority may be withdrawn at any time before a patent is issued. If the applicant withdraws a request for priority before the expiry of the confidentiality period it may be possible to delay the opening of the application to public inspection (subsection 10(4) of the *Patent Act*). The withdrawal must be made within sixteen months of the filing date of the priority application, or a later date if the technical preparations to open the application to public inspection can be stopped (sections 91 and 145 of the *Patent Rules*). The application will then be laid open to public inspection at the end of the new confidentiality period (eighteen months from the Canadian filing or eighteen months from the earliest of any other priority date, if more than one priority was claimed).

2.01.04 Legal Implication of date of opening to public inspection

The opening to public inspection starts the protection period for a patentee in accordance with subsection 55(2) of the *Patent Act*, provided that the opened application is subsequently issued to patent.

2.02 Information on applications

Opened applications for patents may be accessed through use of the INQUIRE/Text database which provides the capability of searching for applications by cover page information, such as by number, the inventor's name or the international patent classification, or alternatively any such document may be located by conducting a word search of the text's subject matter.

2.02.01 Numbering of applications

Applications for patents filed after October 1,1989 are given unique numbers at filing. This number will be in the two million series of numbers and any patent issuing from such applications will bear the same number. A reissued patent and a reexamined patent will bear the same number as the original patent. Divisional applications are given a number in the two million series but different from the number of the original patent application.

Applications for patents filed prior to October 1, 1989 bear unique numbers. Patents issuing from these applications are given unique numbers in the one million series. Divisional applications arising from such applications will be given numbers that are different from those given the original patent applications. Applications for reissue will also be given unique numbers that are different from their original patent numbers.

2.02.02 Status information relating to applications identified by serial numbers

On payment of the fee set out in Schedule II, item 24, the Patent Office will indicate whether a Canadian application identified by serial number has issued to patent.

2.03 Searches by the public

It is a function of the Information Branch to help agents and members of the public in their searches by providing the necessary search tools and explaining their use. Searchers unfamiliar with Patent Office's classification systems and those searchers requiring further assistance are referred to the Classification Division where classification examiners will recommend a search pattern. In case of any doubt about a search pattern, the classification examiners may suggest that searchers consult examiners in a particular field. Examiners are expected to give such searchers specific directions where to search in their particular field of technology, but are not expected to carry out these searches themselves.

2.04 Opinions on opened applications

The Patent Office Staff will not express any opinion with respect to the claims of an opened application except on examination of the application, nor will they give any opinion concerning the final scope of those claims. Furthermore, they will not express a view as to whether any proposal presented would infringe the claims of an opened application.

2.04.01 Validity and interpretation of patents

Issued patents granted by the Patent Office are presumed valid under section 43 of the

Patent Act until such time as the Courts decide otherwise or the patent is made subject to reissue or re-examination procedures. Employees of the Patent Office may not comment on the validity of any issued patent, nor may they discuss how claims of any issued patent should be interpreted, or express a view as to whether they would be infringed by any proposal presented. Any member of the public requesting information of this type is advised to seek advice from a registered patent agent or a patent lawyer.

Chapter 3
Inquiries and information on pending applications

3.01 Inquiries by applicants

On occasion applicants, authorized correspondence or persons authorized by an applicant or authorized correspondent may wish to inquire about the status of their applications or ask when they will be acted upon. The procedure for handling such inquiries is outlined below.

3.01.01 Status inquiries

While applicants may inquire by letter about the status of their application, such inquiries should be kept to a minimum. The letter asking for status information should be restricted to the matter of status and not cover other subjects, since it will be stamped to indicate status only and returned to the applicant. If no examination has been requested on the application, the letter is stamped: "EXAMINATION NOT YET REQUESTED". If examination has been requested and the examination process has been started, the letter is either stamped: "UNDER EXAMINATION - NO OUTSTANDING ACTION - APPLICATION IN GOOD STANDING" or "UNDER EXAMINATION - THERE IS AN OUTSTANDING ACTION ON THIS APPLICATION - SEE ( ) MAILED ( )". The letter is initialled by the clerical staff.

When an inquiry is made by an inventor not represented by a patent agent, the Patent Office does not return the inquiry letter but writes to the inventor, explaining the status of the application.

When it is found that an application is not in good standing (i.e. it is abandoned), the applicant is advised of its present status by letter, and the reason for its abandonment. For example, the applicant will be told that it is abandoned for "failure to reply to the report of...". A letter would also be sent under other special circumstances, for example, if the application is before the courts.

Information about the status of unopened applications is given only to the authorized correspondent for the application, to the applicant or to a person authorized by the

authorized correspondent or the applicant to receive the information.

3.01.02 Action inquiries

Applicants may ask by letter when the next examiner's action may be expected. Normally the applicant's letter will be returned after it has been stamped with the information: "THE EXAMINER EXPECTS TO REACH THIS APPLICATION IN ABOUT ( ) MONTHS". The blank space is filled in by the examiner. In those instances where examination has not yet been requested the applicant will be so informed.

3.02 Inquiries on pending applications (Section 11 of the *Patent Act*)

Under section 11 of the *Patent Act* information may be given to inquirers as to whether there is filed and pending in Canada an application, opened or unopened, that corresponds in subject matter and is related to a foreign patent by common inventors or applicants. No information is released about Canadian applications of different inventors/applicants directed to the same subject matter, nor is any search made to locate corresponding Canadian patents of the same inventors. However, information is supplied when there is at least one inventor or applicant common to both the foreign patent and a Canadian application.

Since the claims in a pending application may be changed at any time prior to issue, an affirmative reply is given to an inquiry under section 11 when there is a corresponding Canadian application disclosing but not necessarily claiming the invention in the foreign patent. The Patent Office looks to the description of the application, as it stands at the time of the inquiry. Matter which may have been deleted from the description is not considered.

Requests under section 11 must be made in writing and accompanied by the fee prescribed in Schedule II item 23 of the *Patent Rules*.

3.02.01 Searches based on foreign patents only

When an inquirer only makes reference to a foreign patent application or other specification that is not a patent, a search is not carried out under section 11 of the

Patent Act. Only foreign patents (including petty patents, utility models and inventors' certificates) may form the basis of an inquiry under section 11. "Design patents" are not included. Therefore, a requester should make certain that a document presented for section 11 search is in fact an issued patent.

3.02.02 How the search is conducted

Normally, an inquirer provides the Patent Office with the number of the foreign patent which includes the name of the inventor and/or the name of the applicant. A search is then made of all Canadian applications filed by the same inventor or by the same applicant.

Failure to indicate the name of the inventor reduces the likelihood of locating a corresponding application. The search covers all pending applications, including allowed applications and applications abandoned for less than 12 months. It also includes reissue applications. Applications filed abroad under the Patent Cooperation Treaty (PCT) and designating Canada will not be included in the search unless they have entered the national phase in Canada. A PCT application designating Canada can enter the national phase in Canada up to 42 months after its international filing date or its priority date, if any (subparagraph 58(3)(b)(ii) of the *Patent Rules*). In assessing pending Canadian applications, the examiner compares the invention claimed in the foreign patent with what could be claimed in the Canadian application. Thus, where the substance of the foreign patent is disclosed in the application as prior art, the pending application is not considered as being a corresponding application. Nor is a Canadian application considered to correspond to a foreign patent when the latter is a selection or improvement of the invention in the application.

Where the Canadian application discloses at least all of the invention of the patent and disclaims none of the subject matter, even tacitly, then the application is considered to correspond to the foreign patent and the inquirer is advised that an application for the same invention is pending in Canada. When the Canadian application discloses only part of the invention of the foreign patent (although other matter may also be described) the inquirer is advised that there is pending an application for part of the same invention but no further details may be supplied. Otherwise, the applicant is advised that a search of the records has failed to reveal a copending application in the name of the inventor (or applicant) that corresponds in subject matter to the identified foreign patent.

Chapter 4
Petitions and appointment of agents or representatives

4.01 The petition

While the abstract, description, claims and drawings of a patent application must be individually, or taken together, wholly in English or wholly in French (subsection 71(3) of the *Patent Rules*), the petition, assignment and other documents may be in either English or French but do not have to be all in the same language or in the same language as the specification (section 71 of the *Patent Rules*). The petition is a statutory requirement under section 27(2) of the *Patent Act* and must follow the format given in Schedule I, Form 3 of the *Patent Rules* (section 77 of the *Patent Rules*). The petition must commence on a new page (section 72 of the *Patent Rules*), must not contain drawings (section 74 of the *Patent Rules*) and must conform to the specific requirements of document presentation set forth in section 68 of the *Patent Rules*.

4.01.01 Amendment to the petition

The Patent Office will accept amended petitions subject to any other provision in the *Patent Act* and *Patent Rules*. No changes may be made to inventors or applicants unless to comply with sections 31, 49 or 50 of the *Patent Act*. The petition may be amended to correct clerical errors under section 35 of the *Patent Rules*. The Patent Office will not require the applicant to submit an amended petition to supply additional or corrected information. Such corrections or additions may be provided in a separate document. The original petition will be retained in the correspondence file of the application.

The requirement in subsection 27(2) of the *Patent Act* that an application contain a petition does not apply to PCT applications filed under the provisions of the Patent Cooperation Treaty (PCT). These applications are filed with a request in accordance with Article 4 of the PCT.

4.01.02 The title

In accordance with Form 3, an applicant must include in the petition or the request an appropriate title for the invention described in the application. Under paragraph 80(1)(a) of the *Patent Rules*, the title must be short and precise. The examiner will requisition an amendment of a title which does not conform to paragraph 80(1)(a) of the *Patent Rules*.

4.01.03 Public Servants Inventions Act

Under section 4 of the Public Servants Inventions Act, a public servant who makes an invention is required to advise the appropriate Minister of the invention and is required to disclose in any Canadian patent application that the applicant is a public servant. Public servants may not file an application for a patent outside Canada without written ministerial permission.

In the case of an invention by a public servant, the petition for patent must indicate that the inventor is a public servant.

4.02 Appointment of agents

Individual inventors may prosecute their own applications provided they have retained some interest in the invention. This does not extend to successors in title. However, an inventor may chose to be represented by a patent agent whose name appears on the register of patent agents which permits the agent to act on behalf of the inventor. Whenever all rights have been assigned and the assignment has been recorded in the Patent Office, an application must be prosecuted by a registered patent agent (see sections 20, 21, 22, 23 and 24 of the *Patent Rules*).

A patent agent may be appointed in the petition itself or separately by submitting to the Commissioner of Patents, a notice signed by the applicant (subsection 20(2) of the *Patent Rules*). The appointment must clearly identify the application to which it refers and the application serial number should be given, if known. When a change is made in the appointment of an agent, a notice signed by the applicant or agent must be submitted (subsection 20(3) of the *Patent Rules*, see also sections 23, 24 and 40 of the

Patent Rules).

4.02.01 Appointment of associate agents

An agent who does not reside in Canada cannot prosecute applications directly, but must appoint an associate agent who is a resident of Canada (subsection 21(1) of the *Patent Rules*). An agent who resides in Canada may also appoint an associate agent provided the associate agent has a Canadian residence (subsection 21(2) of the *Patent Rules*). Changes in the appointment of agents and associate agents may be effected by the applicant, the agent or associate agent (subsections 6(2), 20(3) and 21(4) of the *Patent Rules*.

4.03 Appointment of representative

An applicant who is the inventor and who does not appear to reside or carry on business at a specified address in Canada shall, on the filing date of the application appoint as a representative a person who resides or carries on business at a specified address in Canada (subsection 29(1) of the *Patent Act*). The appointee is deemed to be the representative of the applicant for all purposes of the *Patent Act* (subsection 29(2) of the *Patent Act*). However, correspondence from the Patent Office is not sent to the representative but directly to the inventor at the foreign address of the inventor. This includes examiner's reports, correspondence from the Commissioner and the patent grant. A representative may be appointed either in the petition (Schedule I, Form 3 of the *Patent Rules*) or by means of a separate document (section 78 of the *Patent Rules*). If applicant fails to appoint a representative, the application will be considered incomplete (paragraph 94(1)(i) of the *Patent Rules*).

A new representative may be appointed by the applicant or patentee at any time and must be appointed where requested by the Commissioner of Patents in accordance with section 29(3) of the *Patent Act*.

4.04 Status as small entity

Individual inventors, small businesses and universities may be entitled to reduced fees for filing applications for patents provided that the criteria defining a "small entity" in

Section 2 of the *Patent Rules* are met. Any applicant who desires to claim small entity status must so indicate in the request for obtaining a patent or in paragraph 7 of the formal petition, if one is filed.

4.05 Representative drawing

A single figure of the drawings is selected by the applicant or alternatively by an officer in the Patent Office to be representative of the drawings illustrating an invention. It is intended that an appropriately reduced version of this figure will be illustrated on the cover page of the opened patent application and the cover page of any patent which may issue from the application. The purpose of this drawing is to assist anyone searching the Canadian patent literature. The applicant is requested to identify what is considered to be the figure most representative of the invention in paragraph 7 of the formal petition.

4.06 Jurisprudence

The following decisions of the courts are of importance in considering the subject matter of this chapter:

<u>petition</u>

Beloit v Valmet	78 CPR (2d)	1	1984
Speery v John Deere	82 CPR (2d)	1	1984
Rothmans, Benson and Hedges	35 CPR (3d)	417	1991
Mobil Oil v Hercules	63 CPR (3d)	473	1995
	57 CPR (3d)	488	1994

<u>assignment</u>

Speery v John Deere	82 CPR (2d)	1	1984
Signalisation v Services	46 CPR (3d)	199	1992
Procter Gamble v Kimberly	40 CPR (3d)	1	1991
Positive Seal v M&I Heat	33 CPR (3d)	417	1991

Signalisation v Services	46 CPR (3d)	199	1992
Forget v Specialty	62 CPR (3d)	537	1995
	48 CPR (3d)	323	1993

license

Marchand v Peloquin	45 CPR (2d)	45	1978
Lubrizol v Imperial Oil	33 CPR (3d)	11	1990
	45 CPR (3d)	449	1992
Positive Seal v M&I Heat	33 CPR (3d)	417	1991
Signalisation v Services	46 CPR (3d)	199	1992
Forget v Specialty	48 CPR (3d)	323	1993
	62 CPR (3d)	537	1995

Chapter 5
Filing and completion requirements

5.00 Scope of chapter

This chapter applies to applications other than PCT national phase applications.

For applications filed under the provisions of the Patent Cooperation Treaty (PCT), see Chapter 22 of this Manual.

5.01 Filing of applications

An application for a patent shall be addressed to "The Commissioner of Patents" and shall be considered to be received by the Commissioner (i.e. filed) on the day that it is delivered to the Canadian Patent Office or to an establishment that is designated by the Commissioner in the *Canadian Patent Office Record* as an establishment to which correspondence addressed to the Commissioner may be delivered.

5.02 Requirements for a filing date

To obtain a filing date under subsection 28(1) of the *Patent Act* an application must conform to the requirements of Section 93 of the *Patent Rules*. It must include:

(a) an indication in English or French that the granting of a Canadian patent is sought;

(b) the name of the applicant;

(c) the address of the applicant or of a patent agent of the applicant;

(d) a document, in English or French, that on its face appears to describe an invention; and

(e) the application fee referred to in subsection 27(2) of the *Patent Act* and set out in Item 1 of Schedule II of the *Patent Rules*.

5.03 Completing the application

Subsection 27(2) of the *Patent Act* requires that an application be filed in accordance with the Regulations. Section 93 of the *Patent Rules* specifies the items required to be given a filing date. However, section 94 of the *Patent Rules* provides that even though an application has been given a filing date under section 93 of the *Patent Rules* it is incomplete unless it meets the requirements of sections 68, 69, 70 and subsection 94(1) of the *Patent Rules* at the time of filing.

Sections 68, 69 and 70 of the *Patent Rules* set forth the requirements for the presentation of documents and include items such as paper size, margins, line spacing and text character size.

Subsection 94(1) of the *Patent Rules* requires that certain information and documents, if not supplied at the time of filing, be supplied in order to complete the application. The information and documents required are as follows:

(a) a petition complying with section 77 of the *Patent Rules*;

(b) an abstract;

(c) a sequence listing, where required by paragraph 111(a) of the *Patent Rules*;

(d) a copy of a sequence listing in computer readable form, where required by paragraph 111(b) of the *Patent Rules*;

(e) a claim or claims;

(f) any drawing referred to in the description;

(g) an appointment of a patent agent, where required by section 20 of the *Patent Rules*;

(h) an appointment of an associate patent agent, where required by section 21 of the *Patent Rules*;

(i) an appointment of a representative, where required by section 29 of the *Patent Act*.

In all cases of incomplete applications, the office will make every effort to inform the applicant of the reasons for noncompliance by means of a courtesy letter. The letter will specify a time limit prior to which the application can be completed free. The time limit will be a date fifteen months from the filing date, or from the date of the earliest previously regularly filed application on which a request for priority is based, if any. The purpose of not requiring a fee for completing an application during the above period is to encourage applicants to provide the Patent Office with electronically scannable pages for TECHSOURCE and to ensure that all documents listed in (a) to (i) in the previous paragraph arrive at the Patent Office in a timely manner for laying open to public inspection under section 10 of the *Patent Act*.

If at the expiration of a time period of fifteen months from the filing date, or the priority date, if any, the application is still not complete, a Commissioner's Notice will be sent under subsection 94(1) of the *Patent Rules*. The Notice will requisition the applicant to complete the application within a period ending the later of three months after the date of the notice and twelve months after the filing date of the application. Completing the application after the notice has been received will require the payment of the completion fee specified in Item 2 of Schedule II of the *Patent Rules*. Failure to complete the application or to pay the fee within the time period specified in the notice will result in abandonment of the application.

5.03.01 Completing applications filed prior to October 1, 1996

Section 148 of the *Patent Rules* specifies that where an application other than a PCT national phase application did not, on the filing date of the application, contain the information and documents listed below, the application shall, for the purposes of section 73(2) of the *Patent Act*, be deemed to be abandoned if, after the expiry of the

twelve-month period after the filing date, the applicant has not paid the fee set out in item 2 of Schedule II and filed the following information and documents:

(a) an abstract;

(b) an appointment of a patent agent, where required by section 20 of the *Patent Rules*;

(c) an appointment of an associated patent agent where required by section 21 of the *Patent Rules*; and

(d) an appointment of a representative, where required by section 29 of the *Patent Act*.

The reinstatement procedures set forth in subsection 16(4) of the Patent Cooperation Treaty Regulations as they read immediately before October 1, 1996 apply to an international application that was, before that date, deemed to be abandoned pursuant to subsection 16(3) of these Regulations.

5.04 Jurisprudence

The following decisions of the courts are of importance in considering the subject matter of this chapter:

filing date (extension of time)

Alexander v Canada	31 CPR (2d)	24	1976
Chinoin v Canada	31 CPR (2d)	32	1976
Didier-Werke v Canada	42 CPR (2d)	69	1978
Re: Procter & Gamble Co.	39 CPR (2d)	269	1979

Chapter 6
Ownership and registration

6.01 Introduction

Making an invention confers a property right on the inventor or in some cases on an employer of an inventor where the invention was made in the normal course of employment. This right includes the entitlement to apply for a patent and such right may be transferred to another person at any time with proper documentation (sections 49 and 50 of the *Patent Act*). As defined in section 2 of the *Patent Rules* a "transfer" means a change in ownership of a patent, of an application or of an interest in an invention and includes an assignment. Such a transfer may be effected at any time beginning at the date of invention and during the term of any patent which may issue in respect of that invention.

The history of transferring or passing on the right to a patent or an application is called the chain of title. The chain of title reflects any document that transfers ownership or that change the name of the owner. Such documents are, for example, assignments, mergers, change of name documents or wills.

By virtue of Section 50(1) of the *Patent Act*, the owner of a patent may assign the right, either wholly or partially, either generally or subject to territorial limitations, and either for the whole term of the patent or for any part thereof. A patent right may be regarded as divisible as to content, territory, or time, and in each case the assignee is to be regarded as the owner of the part assigned, and the assignor as the owner of the part not assigned. There may thus be more than one owner of the rights in a patent at one time.

6.02 Evidence

Where an application is filed in the Patent Office by a person who is not the inventor the applicant must, before a patent issues, file evidence that the applicant is a legal representative of the inventor and copies of documents effecting transfers relevant to the applicant's entitlement to file the application. The documentation and the fee for

registration of the ownership should preferably be provided at the time of filing. In this case, the requirements of section 37 of the *Patent Rules* are complied with and the ownership documentation will be registered by the Patent Office and a certificate of registration will be sent to the applicant.

If the ownership documentation is not present or is incomplete the Patent Office will notify the applicant and will indicate the documents required for registration. This notification will be included in a courtesy letter which will inform the applicant of any deficiencies regarding the formal requirements of the application. The documentation required to establish ownership is not a completion requirement and is not subject to the same time limits as provided under section 94 of the *Patent Rules* for incomplete applications. However, as a matter of office practice, if the ownership documentation is not provided within 12 months of the Canadian filing date, or the national entry date of an application filed under the provisions of the PCT, the Commissioner will requisition the applicant to submit such documentation, requiring registration of the documents and the registration fee within 3 months of the requisition. If the applicant fails to reply in good faith to this requisition, the application becomes abandoned in accordance with section 97 of the *Patent Rules*. This 3 month time limit may be extended under section 26 of the *Patent Rules*.

In the case where an application is allowed, a patent shall not be granted to a transferee of said application unless the request for registration of the transfer is filed on or before the final fee is paid and the patent will issue in the name of the applicant as it existed at the time the final fee was paid. Transfers requested after the final fee is paid will not be processed until after the patent has issued (section 41 of the *Patent Rules*).

6.03 Registration

With the exception of transfers and exclusive license agreements, the Commissioner must register any document relating to a patent or an application upon the request of any person and upon payment of the fee set out in item 21 of Schedule II to the *Patent Rules* (section 42 of the *Patent Act*). Transfer documents relating to exclusive license agreements must be accompanied by proof of execution in accordance with subsection

49(3) and subsection 50(3) of the *Patent Act*. The following are examples of the type of proof that will be accepted for the purposes of section 49(3) and 50(3) of the *Patent Act*:

- an affidavit of a subscribing witness,
- the signature of a witness on the document, or
- the signature of the assignor if either the assignor or the agent of record indicates on the covering letter that the transfer or agreement was signed by the assignor,
- a corporate seal on the document.

In accordance with section 71 of *Patent Rules*, all documents submitted for registration must be in English or French or be accompanied by a translation into English or French.

Copies or photocopies of any document purporting to transfer ownership of a patent application will be registered by the Patent Office without requiring certification.

The following are required to proceed to register a transfer:

- the document must be signed and dated,
- a person signing on behalf of a company must specify his/her position and capacity to sign
- the complete address of the new owner must be given,
- all previous steps in the chain in title must have been recognized by the Commissioner of Patents;
- the document must identify the application or patent, either by the application or patent number, by priority information or any other suitable way that will allow the Patent Office to positively identify the correct document,

- the document must be specific with respect to which Canadian rights are being transferred and for amalgamations, mergers and consolidations it is not necessary to submit the entire document but only the relevant extracts and provide a precise statement of the portion of interest transferred.

In the case where there appears to be insufficient documentation, the Patent Office will send an office letter requisitioning clarification.

The following is a list of examples of various document types which can be registered:

(A) TRANSFER

Transfer per se

- assignment of all interest
- assignment of partial interest
- transfer of assets
- court orders
- wills
- amalgamations
- mergers
- consolidations

Updates

- change of names
- marriage certificates
- changes of incorporation
- affidavits

Other documents

- writ of Fieri Facias
- seizures
- court orders
- disclaimers

(B) AGREEMENTS

- notice of license agreement
- exclusive license agreement
- license agreements

- security agreements
- debentures
- compulsory licenses
- release of security agreements

6.04 Applicant for PCT applications at National Entry

Upon entry into the national phase in Canada an applicant who has filed an international application under the provisions of the Patent Cooperation Treaty (PCT) must comply with the requirements specified in subsection 58(1) of the *Patent Rules*.

The Patent Office requires certain documents concerning ownership for the granting of patents. The following situations may occur as outlined below.

1. The applicant who originally filed an international application requests entry into the national phase and provides the Patent Office with evidence by way of affidavit, statuary declaration or copies of documents effecting transfers or changes of names that the applicant is a legal representative of the inventor and copies of documents effecting transfers relevant to the applicant's entitlement to file the application (subsection 37(b) of the *Patent Rules*). No further documentation will be required by the Patent Office respecting ownership of the rights to the invention in this case, but the applicant will be requisitioned to register the necessary documentation in the Patent Office.

2. The applicant who originally filed the international application requests entry into the national phase but provides no documentation relating to ownership of the invention. In this case the Patent Office will advise the applicant by way of a courtesy letter that evidence meeting the requirements of section 37 of the *Patent Rules* as outlined above must be provided within 12 months of the date of national entry. If the ownership documentation is not provided within that time period, the Commissioner will requisition the applicant to submit such documentation, requiring registration of the documents and the registration fee within 3 months of the requisition. If the applicant fails to reply in good faith to this requisition the application becomes abandoned in accordance with section 97 of the *Patent Rules*. This three month time limit may be extended under

section 26 of the *Patent Rules*.

3. If the applicant entering the national phase is different from the applicant who filed the original international application, evidence that the applicant requesting national entry is the legal representative of the originally identified applicant must be provided (subsection 58(5) of the *Patent Rules*), if not already on file. Such evidence may be provided at the time of requesting national entry. If such evidence is not provided at that time, the Commissioner will requisition the necessary documents under section 25 of the *Patent Rules* which prescribes a three month time limit for compliance. The evidence required to satisfy subsection 58(5) of the *Patent Rules* must be provided to permit national entry. When this evidence is provided, the applicant will be accorded the national entry date on which the requirements of subsection 58(1) were satisfied. Although the form IB/306 is sufficient to satisfy the national entry requirement specified in subsection 58(5) of the *Patent Rules*, there will be a subsequent requirement to register the documents required by section 37 of the *Patent Rules*. The documents to be registered for that purpose must be such that the chain of title from the inventor to the present applicant is complete (sections 37, 38 and 39 of the *Patent Rules* and section 51 of the *Patent Act*).

4. In each of the situations outlined in 1, 2 or 3 above, the applicant will be notified by means of a courtesy letter of the action that must be taken to satisfy the Patent Office requirements concerning ownership.

6.05 Refusal of a joint inventor to proceed

When two or more persons jointly make an invention, all the inventors must join in applying for a patent and a patent is granted to them jointly. In case of disputes between joint applicants, Section 31 of the *Patent Act* applies, as follows:

(A) A joint inventor who refuses to file an application for patent;

By virtue of Section 31(1) of the *Patent Act*, If an invention is made by two or more inventors, and if one refuses to apply for a patent or if his whereabouts cannot be ascertained, the other inventor(s) may apply for a patent, and a patent

may be granted in the names of those who apply, provided the Commissioner is satisfied that the joint inventor has refused to apply or cannot be found. Evidence to satisfy the Commissioner may be submitted by way of affidavit or statutory declaration.

(B) A joint applicant who refuses to further proceed with the application;

In accordance with section 31(2) of the *Patent Act* if an applicant who agrees in writing to assign his rights to another person and subsequently refuses to proceed with the application, or if disputes arise between joint applicants with respect to proceeding with an application, the Commissioner may allow that other person or joint applicant to proceed alone. To satisfy the Commissioner that one or more of the applicants ought to be allowed to proceed alone, evidence by way of affidavit or statutory declaration may be provided. All persons interested are entitled to be heard before the Commissioner.

6.06 Correction of transfer documents

The Patent Office will not require correction of minors errors in transfers or minor discrepancies between the transfer document and the petition. For example, company's abbreviations are not questioned such as Co. for Company, Inc. for Incorporated or LTD for Limited.

Any transfer of ownership which has been registered in the Patent Office may be corrected under the provisions of section 8 of the *Patent Act*.

6.07 Certificate of registration

Upon registration of a transfer including mergers, amalgamations and consolidations, a certificate of registration is produced and identified by number. The documents submitted for registration are scanned and annexed to the corresponding application file. The certificate and the documents submitted are returned to the sender.

No certificate is produced for a change of name.

The Federal Court has jurisdiction, on the application of the Commissioner or of any person interested, to order that any entry in the records of the Patent Office relating to the title to a patent be varied or expunged (section 52 of the *Patent Act*).

6.08 Certified copies

Certified copies bearing the seal of the office may be obtained upon specific request and payment of the fee prescribed under item 26 of Schedule II of the *Patent Rules*. Certified copies of the certificate of registration or any document registered in Patent Office may be obtained in a similar manner.

6.09 Maintaining chain of title

In accordance with Rule 38 of *Patent Rules*, no transfer of a patent or application to a new owner is recognized by the Commissioner unless a copy of the document effecting the transfer from the currently recognized owner to the new owner has been registered in the Patent Office in respect of that patent or application.

6.10 Ownership rights

Once a transfer of ownership has been recorded, the application may not be withdrawn without the consent in writing of every currently recognized owner (subsection 49(2) of the *Patent Act*).

Revocation of the agent or representative and appointment of the new agent or representative has to be signed by the currently recognized owner or the patent agent currently of record (Section 20(3) of the *Patent Rules*).

6.11 Ownership information

The Patent Office maintains a register listing the names and addresses of all the owners of each application or patent. The ownership register may be consulted in the Public Search Room.

Chapter 7
Internal priority and convention priority

7.01 Filing requirements when priority Is requested

For applications filed after October 1, 1996:

The requirements for requesting priority in respect of a patent application are set out in section 28.4 of the *Patent Act* and sections 65, 88 and 89 of the *Patent Rules*. A request may be relied upon only if an application has been filed in Canada within 12 months of the earliest date on which any corresponding application has been filed in Canada or in any country belonging to the Paris Convention or in any World Trade Organization (WTO) member country (subparagraph 28.1(1)(a)(ii) and paragraph 28.1(1)(b) of the *Patent Act*).

Priority for applications filed under the provisions of the Patent Cooperation Treaty (PCT) is recorded in accordance with the procedures outlined in Section 7.01.02 below.

An application is not entitled to the "claim date" conferred by Section 28.1 of the *Patent Act*, unless the applicant requests priority based on a previously regularly filed application before the expiry of four months after the filing date of the application in Canada (paragraph 88(1)(b) of the *Patent Rules*).

The request for priority may be made in the petition or in a separate document (paragraph 88(1)(a) of the *Patent Rules*).

The applicant must provide the Commissioner with the date and country of each previously regularly filed application on which the request for priority is based, before the expiry of the four-month period after the filing date of the application in Canada (paragraph 88(1)(c) of the *Patent Rules*).

The applicant provide the Commissioner with the application number of each previously regularly filed application on which the request for priority is based, before the expiry of the later of the four-month period after the filing date of the subject application in

Canada, and the twelve-month period after the date of filing of the previously regularly filed application (paragraph 88(1)(d) of the *Patent Rules*).

No extension of time is permitted for requesting priority and providing the Commissioner with the date and country of each previously regularly filed application and for providing the application number of such applications (subsection 88(2) of the *Patent Rules*).

An applicant will be afforded the benefit of a request for priority only if the priority document adequately discloses at least part of the invention described in the subject application. Where a previously regularly filed application on the basis of which a request for priority is based is taken into account pursuant to sections 28.1 to 28.4 of the *Patent Act*, the applicant may be required to file a certified copy of such application and a certification from the patent office in which the application was filed, indicating the actual date of its filing (section 89 of the *Patent Rules*). If the previously regularly filed application is not written in either English or French, the applicant will be requisitioned to provide a translation in one of these languages (section 71 of the *Patent Rules*).

The benefit of a request for priority is not afforded by the Patent Office if an applicant has filed two applications in one or more countries for the same subject matter, and one of those filings was more than a year before the Canadian filing. Under normal circumstances no priority benefit may be based on the second application, even if it has been filed less than a year before the Canadian filing, except for new matter appearing in the second application. However, if the first filed application is considered never to have been filed in accordance with subsection 28.4(5) of the *Patent Act*, an inventor may be entitled to full priority rights based upon the subsequently filed application.

Priority is based on the specification in priority applications and thus not restricted to the invention claimed. A provisional patent application filed in a foreign jurisdiction such as a United States provisional application, may also serve as a basis for claiming priority for a Canadian application.

For applications filed prior to October 1, 1996 and after October 1, 1989:

A request for priority must be received by the Patent Office within six months of the filing date of the application (the subject application). The applicant must also provide the Commissioner with the date and country of filing and the application number of

each previously regularly filed application on which the request for priority is based before the expiry of the six-month period after the filing date of the subject application (section 142 of the *Patent Rules*). Other than the time limits specified, all other provisions affecting priority are as given above.

No extension of time is permitted for requesting priority and providing the Commissioner with the date and country of each previously regularly filed application and for providing the application number of such applications (subsection 142(2) of the *Patent Rules*).

7.01.01 Internal priority

It is permitted to request priority based on a previously regularly filed Canadian application in a subsequently filed application provided the request is made within 4 months of the filing of the subsequently filed application. The applicant must provide the date of filing of the subject application within four months of the filing of the subsequently filed application and must also provide the application number of the subject application within the later of the four-month period after the filing date of the subsequently filed application and the twelve-month period after the date of filing of the subject application.

This practice provides an applicant the opportunity to file an application for patent as early as possible after an invention has been made in order to obtain the filing date for the disclosed subject matter. If the applicant subsequently makes improvements or alterations to the original invention, the applicant may file an additional application adding the new matter and requesting priority on the first filed application. This allows the applicant to maintain the original filing date for the subject matter disclosed in the first filed application while receiving a later filing date for the new matter. The applicant has the option of proceeding with both applications or abandoning the first application and proceeding with the second application.

7.01.02 PCT priority

The filing of an international application has the effect of filing a regular national application in each designated state. For the purposes of the Paris Convention, the effect of an international application is equivalent to that of a national filing. Priority rights, for example, may be based on an international application.

If the international application has acquired priority rights before the International Bureau based on an earlier filed national application, those rights would be extended to the applicant upon national entry in Canada.

For priority requests under the provisions of the Patent Cooperation Treaty (PCT) see Chapter 22 of this Manual.

7.02 Time limits for requesting priority under the Paris Convention

Applications requesting priority rights must be filed in Canada on or before the first anniversary date of the first filing in a Paris Convention country, a WTO member or Canada. The "twelve months" referred to in paragraph 28.1(1)(b) of the *Patent Act* ends on and includes the anniversary date of the first filing. However, if the anniversary date is a day when the Patent Office is closed for business, the filing may be made on the next day when the Patent Office is open for business (section 78 of the *Patent Act*).

7.03 Priority and OPI date in Canada

The date of the earliest previously filed application on which a request for priority is based will determine the date of opening to public inspection in Canada. In accordance with subsections 10(1) and (2) of the *Patent Act*, the application and all documents filed in connection with the application will be opened on the expiry of an 18 month confidentiality period beginning on the earliest priority date unless the applicant requests an earlier opening.

7.03.01 Withdrawal of priority

Under subsection 28.4(3) of the *Patent Act*, an applicant may withdraw a request for priority, either entirely or with respect to one or more previously regularly filed applications, by filing a request with the Commissioner. The Commissioner shall send a notice to the applicant advising that the request for priority has been withdrawn (subsection 90(1) of the *Patent Rules*). The effective date of the withdrawal of the

request for priority will be the date the request for withdrawal is received by the Commissioner (subsection 90(2) of the *Patent Rules*).

7.04 Petty Patents and Authors' Certificates

The Patent Office recognizes convention priority based on petty patent applications, applications for authors' certificates, and utility models filed in foreign countries, since these are considered forms of patent applications. On the other hand, no priority may be based on a foreign application for an industrial design registration, design patents or their equivalent.

7.05 U.S. Continuation-in-part applications

Under some conditions, priority may be based on United States continuation-in-part applications. A continuation-in-part application may serve as a priority document for new matter disclosed in it and not in the original United States application if the Canadian application is filed within a year of the continuation-in-part.

Where a Canadian application is filed more than a year after the filing date of the original United States application, but less than a year after the continuation-in-part, the applicant is not entitled to priority on subject matter common to the two United States applications, even if the original has been abandoned. While under the Paris Convention an applicant may claim priority based on a second foreign application when the first has been abandoned, this is only so if there are no rights whatsoever remaining (Subsection 28.4(5) of the *Patent Act*). In the case of a continuation-in-part application, certain rights are carried over from the abandoned original application.

If both the original and the continuation-in-part applications are filed within the year preceding the filing of the Canadian application, priority may be based on both the original application and on the new matter in the continuation-in-part.

Where, therefore, priority is necessary to support a claim date in the prosecution of a Canadian application claiming priority from a United States continuation-in-part application only, it is necessary to identify the matter derived from the original United

States application, thereby to determine the priority rights of the applicant. Because a United States continuation-in-part application does not identify the new matter added to the original United States application, the applicant must submit certified copies of the original and continuation-in-part applications whenever required to do so by the Patent Office.

7.06 Multiple priorities

Subsection 28.4(4) of the *Patent Act* provides for multiple convention priorities.

A Canadian application, the subject application, may be a composite of several earlier filings of the inventor, and entitled to priority in respect of each for the subject matter contained therein, provided, that the subject application was filed within a year of the earliest filed application on which the request for priority is based.

Claim dates under section 28.1 of the *Patent Act* may be based on one or more previously regularly filed applications in the same or different countries which describe the subject matter of the claim in question. See also Chapter 15 of this Manual.

Chapter 8
Abstracts

8.01 Abstracts

Subsection 27(2) of the *Patent Act* provides the authority for the requirements of a patent application. An abstract is not a requirement for a filing date. An application, however, must contain an abstract in order to be complete (paragraph 94(1)(*b*) of the *Patent Rules*).

Section 79 of the *Patent Rules* sets forth the required form and content of the abstract as follows:

An application shall contain an abstract which shall

(a) contain a concise summary of the matter contained in the application and, where applicable, the chemical formula that, among all the formulae included in the application, best characterizes the invention;

(b) specify the technical field to which the invention relates;

(c) be drafted in a way that allows the clear understanding of the technical problem, the gist of the solution of that problem through the invention, and the principal use or uses of the invention;

(d) be so drafted that it can efficiently serve as a scanning tool for purposes of searching in the particular art; and

(e) shall not contain more than 150 words.

Section 72 of the *Patent Rules* specifies that the abstract should be provided on a page separate from the description. For clarity, it should have a separate heading, such as, "Abstract of the Specification". Since the abstract will be used as a search tool in the Patent Office's Techsource database, the text should avoid patent jargon so that it may be readily understood by technicians and scientists and other persons who are

interested in obtaining information about opened patent applications and issued patents. It should provide a means for quickly determining the nature of the description so that the reader can decide whether a complete copy of the specification would be useful.

8.02 Reference characters in abstracts

Each main technical feature mentioned in the abstract and illustrated by a drawing in the application may be followed by a reference character referred to in a drawing, placed between parentheses (subsection 79(7) of the *Patent Rules*).

8.03 Examination of abstracts

Abstracts are subject to examination in respect to their conformance with section 79 of the *Patent Rules*.

8.04 Applications ready for allowance

When an application is allowable, except for the abstract, the examiner requisitions an amendment. The requisition notifies the applicant that the form of the abstract is the sole impediment to the prompt allowance of the application and that amendment to comply with section 79 of the *Patent Rules* is requisitioned within the prescribed time limit. Failure to respond will result in abandonment of the application.

8.05 Examples of abstracts

The following examples illustrate what are considered to be suitable abstracts.

(a) A heart valve with an annular valve body defining an orifice and having a plurality of struts forming a pair of cages on opposite sides of the orifice. A spherical closure member is captively held within the cages and moved by blood flow between open and closed positions in check valve fashion. A slight leak or

backflow is provided in the closed position by making the orifice slightly larger than the closure member. Blood flow is maximized in the open position of the valve by providing a convex profile on the orifice-defining surfaces of the body. An annular rib is formed in a channel around the periphery of the valve body to anchor a suture ring used to secure the valve within the heart.

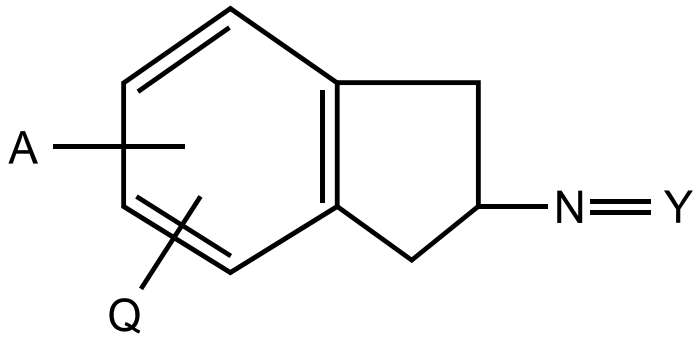
(b) A method comprising the use of heat to seal overlapping closure panels of a folding box made from paperboard having an extremely thin coating of moisture-proofing thermo-plastic material on opposite surfaces. Heated air is directed at the surfaces to be bonded, the temperature of the air at the point of impact on the surfaces being above the char point of the board. The boxes are moved so quickly through the air stream that the coating on the side of the panels not directly exposed to the hot air remains substantially non-tacky. A bond is formed almost immediately after heating. Under such conditions the heat applied to soften the thermo-plastic coating is dissipated after completion of the bond by absorption into the board itself, which acts as a heat sink, without the need for cooling devices.

(c) Amides are produced by reacting an ester of a carboxylic acid with an amine, using as catalyst an alkoxide of an alkali metal. The ester is first heated to at least 75°C. under a pressure of no more than 500 mm. of mercury to remove moisture and acid gases which prevent the reaction, and then converted to an amide without further heating.

(d) Process for the production of semiconductor devices, wherein a silicon oxide film is formed on a surface of a semiconductor substrate, followed by deposition of a layer of lead on the film. This combination is then heated at 500-700°C. for at least 10 minutes in an oxidizing atmosphere, whereby a passivating film forms, consisting essentially of silicon oxide and lead oxide. The temperatures employed are substantially lower than those conventionally used, and prevent deterioration of the device.

(e) Wool is heated at 50-65°C. for less than 15 minutes in an aqueous dispersion of 0.1-2 percent calcium hydroxide, washed, and then acidified to render it receptive to dyestuffs without adversely affecting the physical properties of the wool.

(f) Compounds of the formula:



wherein A and Q are hydrogen or alkoxy groups and Y means an alkylene group with 4 to 7 carbon atoms, are useful as plant desiccants.

(g) Method by which a token-passing local-area network having from 2 to 2^n modules is initialized, where n is an integer greater than zero. When connected into the network and energized, each module determines if the network is initialized and, if not, which module is to do so. Each module has a unique n bit network address. The module with the smallest network address energized before the network is initialized is identified and begins the process of initialization by transmitting tokens addressed sequentially to network addresses beginning with the next higher address than its own until a token so transmitted is accepted by an addresses module or until a token has been addressed to all network addresses other than that of the initiating module. After tokens are transmitted to all possible network addresses other than that of the initiating module, the initiating module generates a fault signal to indicate its status.

Chapter 9
Description

9.01 The description

The description means the part of the specification other than the claims (see definition in section 2 of the *Patent Rules*).

The description must describe the invention and its operation or use as contemplated by the inventor (subsection 27(3) of the *Patent Act*). It must be in the same language as the claims, that is, wholly in English or wholly in French (subsection 71(3) of the *Patent Rules*). If an applicant wishes to change the language used in a specification, he may submit a new specification in the other official language provided that no new matter is added.

The description must be clear and accurate. It should be as simple, direct, and free from obscurity and ambiguity as possible. It is addressed to persons skilled in the art or science to which the invention pertains and must be so written that those persons would be able to put the invention to the same successful use as had the inventor.

The description must not contain erroneous or misleading statements likely to deceive or mislead persons to whom it is addressed. Nor should it be couched in such language as to render it difficult to comprehend the invention's mode of operation without trial or experimentation. Broad assumptions or unproved statements made in the description are objectionable and must be removed. If only one embodiment is operable, alternatives must not be suggested even if skilled persons would probably choose the operable embodiment (Mineral Separation v. Noranda Mines 1947 Ex. C.R.)

The actual inventive step need not appear in a single sentence or paragraph in the description. It is sufficient if it can be seen that the invention is described in the description as a whole.

For applications filed on or after October 1, 1996 the description must be presented in the manner set forth in sections 69(1),(3), (4), and (5), 70(1), 71, 72, 73, 74, 75, and 76 of the *Patent Rules*. These Rules require specified standards in regard to the paper

size and quality, margins, page numbering, line numbering, sequence listings, language of the description, etc..

As prescribed by paragraphs (a) to (g) of subsection 80(1) of the *Patent Rules* the description shall:

(a) state the title of the invention, which shall be short and precise;

(b) specify the technical field to which the invention relates;

(c) describe the background art that, as far as known to the applicant, can be regarded as important for the understanding, searching and examination of the invention;

(d) describe the invention in terms that allow the understanding, of the technical problem, even if not expressly stated as such, and its solution;

(e) briefly describe the figures in the drawings, if any;

(f) set forth at least one mode contemplated by the inventor for carrying out the invention in terms of examples, where appropriate, and with reference to the drawings, if any; and

(g) contain a sequence listing where required by paragraph 111(a) of the *Patent Rules*.

The description must be presented in the manner and order specified in (a) to (g) above unless, because of the nature of the invention a different manner or a different order would afford a better understanding or a more economical presentation (subsection 80(2) of the *Patent Rules*). This would, for example, permit the applicant to refer to drawings of the background art prior to providing a brief description of the figures in all of the drawings.

For applications filed in the period beginning on October 1, 1989 and ending on the day before October 1, 1996, the description must conform to sections 133, 134, 135, 136,137,138, and 140 of the *Patent Rules*.

For applications filed before October 1, 1989, the description must conform to sections 169, 170, 171, 172, 173, and 176 of the *Patent Rules*.

A new product should be described in terms of its characteristics and for a compound its derived formula should be given.

Under Section 2 of the *Patent Act*, the invention must have utility. The description should explain at least one use of the invention in sufficient detail to enable a skilled person to use the invention for its intended purpose. If no use can be seen on the basis of the description, the application may be rejected for lack of utility.

Not only must the applicant give all information for putting the invention to use but he must also insert necessary warnings to avert failure.

9.02 Title of the invention

Each application for a patent must have a title. The title of the invention must appear on the first page of the description and should preferably also appear on the page containing the abstract. It must be short and precise (paragraph (a) of subsection 80(1) of the *Patent Rules*). It should be descriptive of the invention rather than broad, such as "CARBON TETRACHLORIDE" rather than "COMPOUNDS".

For applications filed in the period beginning October 1, 1989 and ending on the day before October 1, 1996, the title must conform to section 134 of the *Patent Rules*.

For applications filed before October 1, 1989, the title must conform to section 170 of the *Patent Rules*.

9.03 Reference to drawings

Drawings are not permitted in the description, abstract, claims, or the petition (subsection 74(1) of the *Patent Rules*). However, the description, abstract and claims may contain chemical or mathematical formulae or the like (subsection 74(2) of the

Patent Rules). All drawings provided with an application for a patent must be described in the description making reference to corresponding reference numbers shown on the drawings identifying the various elements being depicted. All reference numbers in the description must appear in the drawings (subsection 82(9) of the *Patent Rules*). The same reference number must describe the same feature throughout the application (subsection 82(10) of the *Patent Rules*).

9.04 Reference to other documents in the description

The description may not incorporate by reference another document (section 81(1) of the *Patent Rules*). The description may refer to a document that does not form part of the application, only if the document was available to the public on the filing date of the application (subsection 81(2) of the *Patent Rules*). Any such document cannot be relied upon for the support of a claim in an application (section 84 of the *Patent Rules*). If a document referred to is a patent or a patent application, it must be identified by the serial number and country or organization where filed. Any other document referred to must be sufficiently identified to enable the document to be located.

For applications filed in the period beginning on October 1, 1989 and ending on the day before October 1, 1996, refer to subsections 137(1), 137(2) and 137(3) of the *Patent Rules*.

For applications filed before October 1, 1989, refer to subsections 173(1), 173(2) and 173(3) of the *Patent Rules*.

9.05 Insufficient description

The description of an application must describe all of the subject matter that the applicant intends to claim as his invention. For example, if the applicant intends to claim a chemical compound the description must disclose how that compound is prepared and desirably it will characterize the compound by some of its physical constants.

When it is clear that the description of an application is not sufficient to support the claims without reference to a document referred to in the application being examined, it is objected to for insufficiency of description under section 84 of the *Patent Rules*. If the reference is to a document that was available to the public before the Canadian application date, the applicant is requisitioned to insert the pertinent disclosure of the document into the application. If the reference is to any document that was not available to the public before the filing date of the Canadian application, the applicant may not import any of the subject matter disclosed in that reference into the application. Further, the applicant will be requisitioned to delete the reference from the description (subsection 81(2) of the *Patent Rules*).

For applications filed in the period beginning on October 1, 1989 and ending on the day before October 1, 1996, see subsection 137(2) of the *Patent Rules*.

For applications filed before October 1, 1989, see subsection 173(2) of the *Patent Rules*.

9.06 Trade-marks in the description

A "trade-mark" is a mark that is used by a person for the purpose of distinguishing, or so as to distinguish, wares or services manufactured, sold, leased, hired or performed by that person from those sold, leased, hired or performed by others.

A "registered trade-mark" is a trade-mark that is on the register kept by the Registrar of Trade-marks.

In compliance with subsection 27(3) of the *Patent Act*, the applicant is required to give a full description of the invention being described. This description may include a trade-mark as long as it is identified as such in the description (see section 76 of the *Patent Rules*). The Commissioner may require a complete description of the wares that are the subject of the trade-mark if reference to the trade-mark per se does not satisfy subsection 27(3) of the *Patent Act*. The applicant is required to give as complete a description as possible. It is usually possible to describe, at least partly, a material or list some of its constituents or properties, if only in general terms. Once the material has been defined, subsequent references to it in the same description or in the claims

may be made by use of the trade-mark alone.

Whenever a trade-mark is used, it must be identified at the first appearance as a trade-mark. For the purpose of identification, the Patent Office will accept the symbol or a statement that it is a trade-mark. Whenever the trade-mark appears subsequently in the specification, it must be identified in a similar manner or by capitalizing all letters or by use of quotation marks.

9.07 Amendments to the description

The general rule governing the admissibility of amendments is that they must not have the effect of introducing new matter.

Under subsection 38.2(2) of the *Patent Act*, the description may not be amended to add subject matter not reasonably to be inferred from the drawings or the specification as originally filed. Therefore, subject matter shown in the drawings as originally filed or set forth in the original claims, may be added to the description. In addition, the applicant is permitted to add matter that describes the prior art with respect to the application (subsection 38.2 (2) of the *Patent Act*). The specification includes the description and claims (subsections 27(3) and (4) of the *Patent Act*). (Refer to Chapter 19.08.01 and 19.10.01)

Any amendment which is not acceptable under section 38 of the *Patent Act* because it contains new matter will be objected to in a subsequent examiner's action and cannot be used to establish a priority date or a claim date. (Refer to 19.08.01 and 19.10.01)

9.08 Jurisprudence

The following decisions of the courts are of importance in considering the subject matter of this chapter:

<u>disclosure/description (directed to one of skill in the art)</u>

O'Cedar v Mallory Hardware	ExCR	299	1956

Description				
Metalliflex v Rodi	35	CPR	49	1961
		SCR	117	1961
American Cyanamid v Charles	47	CPR	215	1965
Gilbert (Gillcross) v Sandoz	64	CPR	14	1970
	1	SCR	336	1974
Leithiser v Pengo Hydra-Pull	12	CPR (2d)	117	1973
	2	FC	954	1974
Burton Parsons v Hewlet	17	CPR (2d)	97	1976
	1	SCR	555	1976
Monsanto v Comm of Pat	42	CPR (2d)	161	1979
	2	SCR	1108	1979
Consolboard v MacMillan	56	CPR (2d)	145	1981
Beecham v Procter & Gamble	61	CPR (2d)	1	1982
Windsurfing v Bic Sports	8	CPR (3d)	241	1985
Amfac v Irving	12	CPR (3d)	193	1986
Hy Kramer v Lindsay	9	CPR (3d)	297	1986
Reading & Bates v Baker	18	CPR (3d)	181	1987
Pioneer Hi-Bred v Com of Pat	25	CPR (3d)	257	1987
	14	CPR (3d)	491	1987
Tye-Sil v Diversified	16	CPR (3d)	207	1987
Eli Lilly v O'Hara	20	CPR (3d)	342	1988
AT&T Tech v Mitel	26	CPR (3d)	238	1989
Computalog v Comtech	32	CPR (3d)	289	1990
	35	CPR (3d)	350	1991
	44	CPR (3d)	77	1992
Lubrizol v Imperial Oil	33	CPR (3d)	1	1990
	45	CPR (3d)	449	1992
Welcome v Apotex	39	CPR (3d)	289	1991
TRW Inc v Walbar	39	CPR (3d)	176	1991
Allied v Du Pont	52	CPR (3d)	351	1993
	50	CPR (3d)	1	1993
Hi-Quail v Rea's Welding	55	CPR (3d)	224	1994
Mobil Oil v Hercules	57	CPR (3d)	488	1994
	63	CPR (3d)	473	1995

misleading statements

Lovell v Beatty		41 CPR	18	1962
Corning v Canada Wire & Cable		81 CPR (2d)	39	1984
Rothmans, Benson & Hedges		35 CPR (3d)	417	1991
TRW Inc v Walbar		39 CPR (3d)	176	1991
PLG Research v Jannock		35 CPR (3d)	346	1991
Nekoosa v AMCA	Int	56 CPR(3d)	470	1994

ambiguity

French's Complex v Electrolytic		ExCR	94	1927
		SCR	462	1930
Mineral Separation v Noranda		12 CPR	99	1947
		15 CPR	133	1952
Omark v Gouger Saw Chain		45 CPR	169	1964
Proctor & Gamble v Bristol		39 CPR (2d)	145	1978
		42 CPR (2d)	33	1979
Standal v Swecan		28 CPR (3d)	261	1989
Gorse v Upwardor		25 CPR (3d)	166	1989
		40 CPR (3d)	479	1992
Reliance v Northern Tel		28 CPR (3d)	397	1989
		44 CPR (3d)	161	1992
		47 CPR (3d)	55	1993
Risi Stone v Groupe Peracon		29 CPR (3d)	243	1990
		65 CPR (3d)	2	1995
PLG Research v Jannock		35 CPR (3d)	346	1991
Procter & Gamble v Kimberly		40 CPR (3d)	1	1991
Unilever v Procter & Gamble		47 CPR (3d)	479	1993
		61 CPR (3d)	499	1995
Allied v Du Pont		52 CPR (3d)	351	1993
		50 CPR (3d)	1	1993
Mobil Oil v Hercules		57 CPR (3d)	488	1994
		63 CPR (3d)	473	1995
Almecon v Nutron		65 CPR (3d)	417	1996

description of product (characterization)

Scully Signal v York Machine	20 CPR	27	1954
Leithiser v Pengo Hydra-Pull	12 CPR (2d)	117	1973
	2 FC	954	1974
Monsanto v Comm of Pat	42 CPR (2d)	161	1979
	2 SCR	1108	1979
Re: Farbwerke Hoechst	13 CPR (3d)	212	1980
Ciba Geigy v Comm of Pat	65 CPR (3d)	73	1982
Martinray v Fabricants	41 CPR (3d)	1	1991
TRW Inc v Walbar	39 CPR (3d)	176	1991
Airseal v M&I Heat	53 CPR (3d)	259	1993
Allied v Du Pont	52 CPR (3d)	351	1993
	50 CPR (3d)	1	1993

need to avert failure

Wandscheer v Sicard	SCR	1	1948
Mineral Separation v Noranda	69 RPC	81	1952
	12 CPR	99	1950
TRW Inc v Walbar	39 CPR (3d)	176	1991
Airseal v M&I Heat	53 CPR (3d)	259	1993
Feherguard v Rocky's	53 CPR (3d)	417	1994
	60 CPR (3d)	512	1995

utility

Mailman v Gillet	SCR	724	1932
Northern Electric v Browns	ExCR	36	1940
	SCR	224	1941
Wandscheer v Sicard	SCR	1	1948
Metalliflex v Wienenberger	35 CPR	49	1961
	SCR	117	1961
Boehringer v Bell-Craig	39 CPR	201	1962
Comm of Pat v Farbweke	41 CPR	9	1963
	SCR	49	1964

Rhone-Poulenc v Gilbert	55 CPR	207	1968
Burton Parsons v Hewlet	17 CPR (2d)	97	1976
	1 SCR	555	1976
Marzone v Eli Lilly	37 CPR (2d)	37	1978
Proctor & Gamble v Bristol	39 CPR (2d)	145	1978
	42 CPR (2d)	33	1979
Monsanto v Comm of Pat	42 CPR (2d)	161	1979
	2 SCR	1108	1979
Consolboard v MacMillan	56 CPR (2d)	145	1981
Radio Corp v Hazeltine	56 CPR (3d)	170	1981
Shell Oil v Comm of Pat	2 SCR	536	1982
	67 CPR (2d)	1	1982
Corning v Canada Wire & Cable	81 CPR (2d)	39	1984
Hy Kramer v Lindsay	9 CPR (3d)	297	1986
Lubrizol v Imperial Oil	33 CPR (3d)	11	1990
	45 CPR (3d)	449	1992
TRW Inc v Walbar	39 CPR (3d)	176	1991
Welcome v Apotex	39 CPR (3d)	289	1991
Haul-All v Shanahan	50 CPR (3d)	368	1993
Unilever v Procter & Gamble	47 CPR (3d)	479	1993
	61 CPR (3d)	499	1995
Feherguard v Rocky's	53 CPR (3d)	417	1994
	60 CPR (3d)	512	1995

<u>novelty in utility</u>

Wright v Brake Service	Ex CR	127	1925
Pope Appliance v Spanish River	Ex CR	28	1926
Candian Gypsum v Gypsum Lime	Ex CR	180	1931
Mailman v Gillet	SCR	724	1932
Lanlois v Roy	Ex CR	197	1941
Northern Electric v Browns	SCR	224	1941
Shell Oil v Comm of Pat	2 SCR	536	1982
	67 CPR (2d)	1	1982

best mode (undue experimentation)

TRW Inc v Walbar	39 CPR (3d)	176	1991
AT&T Tech v Mitel	26 CPR (3d)	238	1989
Mobil Oil v Hercules	3 CPR (3d)	473	1995
	57 CPR (3d)	488	1994

insufficiency of disclosure

French's Complex v Electrolytic	ExCR	94	1927
	SCR	462	1930
BVD Co V Canadian Celanese	ExCR	139	1936
Low v Hawley Products	1 DLR	15	1940
Mineral Separation v Noranda	12 CPR	99	1950
	69 RPC	81	1952
Di Fiore v Tardi	16 CPR	18	1952
Boehringer v Bell-Craig	39 CPR	201	1962
Rhone-Poulenc v Gilbert	55 CPR	207	1968
Gilbert (Gillcross) v Sandoz	64 CPR	14	1970
	SCR	1336	1974
Leithiser v Pengo Hydra-Pull	12 CPR (2d)	117	1973
	2 FC	954	1974
Xerox v IBM	33 CPR (2d)	24	1977
Re: Farbwerke Hoechst	13 CPR (3d)	212	1980
Ductmate v Exanno	2 CPR (3d)	289	1984
Corning v Canada Wire & Cable	81 CPR (2d)	39	1984
Pioneer Hi-Bred v Com of Pat	14 CPR (3d)	491	1987
	25 CPR (3d)	257	1987
Cabot Corp v 318602 Ont	20 CPR (3d)	132	1988
Reliance v Northern Tel	28 CPR (3d)	397	1989
	44 CPR (3d)	161	1992
	47 CPR (3d)	55	1993
Rothmans, Benson & Hedges	35 CPR (3d)	417	1991
TRW Inc v Walbar	39 CPR (3d)	176	1991
Computalog v Comtech	44 CPR (3d)	77	1992
Allied v Du Pont	52 CPR (3d)	351	1993

	50 CPR (3d)	1	1993
Mobil Oil v Hercules	57 CPR (3d)	488	1994
	63 CPR (3d)	473	1995

consistory clause

Reliance Electric v Northern	47 CPR (3d)	55	1993
Re: Appln 122,906	52 CPR (2d)	135	1978

object statements

Amfac Foods v Irving Pulp	12 CPR (3d)	193	1986
	80 CPR (2d)	59	1984
Saunders v Airglide	50 CPR (2d)	6	1980
Johnston Controls v Varta	80 CPR (2d)	1	1984
Reliance v Northern Tel	28 CPR (3d)	397	1989
	44 CPR (3d)	161	1992
	47 CPR (3d)	55	1993

variance/omnibus clause

Mico Products v Acetol	ExCR	64	1930
Leithiser v Pengo Hydra-Pull	12 CPR (2d)	117	1973
	2 FC	954	1974
Amfac Foods v Irving Pulp	12 CPR (3d)	193	1986
	80 CPR (2d)	59	1984

Chapter 10
Drawings

10.01 Drawings

Inventions which can be illustrated by means of drawings must be so illustrated in an application for a patent. The role of the drawings is to clarify the principles of the construction of a device rather than to provide particular details of dimensions or relative proportions. The drawings must clearly show all parts of the invention (subsection 37(1) of the *Patent Act*). Known devices may be illustrated by symbols which have a universally recognized conventional meaning provided that no further detail is essential for understanding the subject matter of the invention. Where text matter in the drawings would give a better understanding of the drawings, a single word or a few words may be used. Blank "blocks" in schematic diagrams must be descriptively labelled. Figures in the drawings which illustrate the prior art should be labelled "PRIOR ART".

Each drawing provided must include reference characters corresponding with those in the description, and the Commissioner may require further drawings or dispense with any of them as the Commissioner sees fit (subsection 37(2) of the *Patent Act*).

Whenever drawings are provided in an application, they must conform to the provisions of sections 72, 82 and 83 and subsections 69(2), 71(3), 74(1), 75(2), 86(1) and (2) of the *Patent Rules*. Section 80(2) of the *Patent Rules* permits reference to the drawings before the "Brief Description of the Drawings" when the reference is made in respect of the prior art.

For applications filed in the period beginning on October 1, 1989 and ending on the day before October 1, 1996, see section 141 of the *Patent Rules*.

For applications filed before October 1, 1989, see section 177 of the *Patent Rules*.

10.01.01 Restriction on amendments to drawings

Drawings may be amended at any time up to the time of payment of the final fee,

unless the application is under final rejection (subsection 38.2(1) of the *Patent Act* and section 33 of the *Patent Rules*).

Drawings may not be amended to add matter not reasonably to be inferred from the specification or drawings as originally filed, except in so far as it is admitted in the specification that the matter is prior art with respect to the application (subsection 38.2(3) of the *Patent Act*).

Drawings may only be amended by inserting new pages in place of the pages altered by the amendment and shall be accompanied by a statement explaining their nature and purpose (section 34 of the *Patent Rules*).

10.02 Photographs

In any case in which an invention does not admit of illustration by means of drawings but does admit of illustration by means of photographs, the applicant may, as part of the application, furnish photographs, or photocopies of photographs, that illustrate the invention (section 83 of the *Patent Rules*).

Chapter 11
Claims

11.01 Basic requirements

The claims must define distinctly and in explicit terms the subject matter of the invention for which protection is sought (section 27(4) of the *Patent Act*). Patentable claims must define novel subject matter. To be considered novel the whole of subject matter defined by a claim shall not form part of the state of the art. With respect to each claim in an application for patent in Canada the state of the art may be defined generally as everything disclosed in such a manner that it became available to the public in Canada or elsewhere before the **CLAIM DATE**. The **CLAIM DATE** of a claim in a Canadian patent application is the filing date of the application in Canada, unless, priority is claimed on an earlier filed application in Canada or elsewhere. In the latter case, the claim date is the filing date of the earliest application which supports the subject matter of the claim Sections 2 and 28.1 of the *Patent Act* and Chapter 15 for more detail. The claims should also specify in a positive manner all the elements, features, and critical aspects of the invention which are necessary to ensure the result as set forth in the description. Each claim (read with the introduction to the claims) must be restricted to a single sentence.

Claims may be drafted to contain the three following major parts:

1) preamble or introductory phrase
2) transitional phrase
3) body (or purview)

The preamble identifies the category of the invention and may state the purpose of the invention with regard to this category.

Examples:

A machine for waxing paper ...
A composition for fertilizing the soil ...

The transitional phrase joins the preamble to a recitation of the elements of the invention to be protected. It also indicates, in an abbreviated way, whether the recitation is left open or closed to additional elements.

Examples:

> which comprises, comprising, including, having ...
> consisting of, consisting essentially of ...

The body of the claim lists the main elements of the invention, such as, parts of a device, steps of a process or method, ingredients of a composition, or groups in the chemical formula of a compound.

Notwithstanding the above, the Patent Office will accept any form of claim that conforms to section 27(4) of the *Patent Act* and that sets forth an invention in distinct and explicit terms and otherwise conforms to the *Patent Act* and the *Patent Rules*.

For a consideration of claims with respect to the prior art (novelty and non-obviousness) see Chapter 15.

For consideration of claims with respect to utility, operability and non-patentable subject matter (section 2 of the *Patent Act*) see Chapter 16.

11.02 Principles of construction

Claims are the starting point for construing a patent as they define the invention and exclusive right sought. The relevant date for the analysis of a claim is the claim date (see Chapter 15). When construing a claim the essential elements must be determined. However, in order to determine the nature of the invention and the essential elements of the invention, the specification must be construed as a whole. Analysis of a patent is to be determined from the point of view of one skilled in the art, with a mind willing to understand the invention.

Even though claims are construed with reference to the description, reference to the description is only permitted to assist the understanding of terms used within the claims

if these terms have a unique meaning. Reference to the description is not permitted for terms that have a plain, common, and unambiguous meaning as these terms would be known to someone of skill within the art, nor is reference to stray phrases within the description considered support for terms within the claims. Furthermore, reference to the description cannot be used to vary the scope of the claims.

The application of these principles can be found in the following: Beecham v Procter Gamble 1982; AT &T v Mitel 1989; Airscal v M&I Heat 1993; Hi-Quail v Rea's Welding 1994; Mobil Oil v Hercules 1994; Cochlear v Cosem; and Almecon v Nutron 1996.

11.03 Clarity

No speculation should be necessary to determine what is covered by each claim. It must not define some parts of the desired monopoly while only alluding to or vaguely mentioning others. If the invention is difficult to claim, due allowance is given for the limitations of language but involved language should not be used when the invention can be claimed simply. Wording should not be so flexible that several interpretations of it are possible, i.e. the claim should not have more than one meaning or be capable of both broad and narrow interpretations.

11.03.01 Antecedents

When an element is referred to in definite terms without having been introduced previously, the claim is objectionable under section 27(4) of the *Patent Act*. An example of this is, "A device for cracking nuts comprising a cup shaped base and a striker element, said lever tripping the hammer at timed intervals". In this claim there are no proper antecedents for "said lever" and "the hammer".

Implied antecedents may be permitted where the word or phrase, by definition, always contains the missing antecedent. For example, a claim beginning with: "A wheel, the axis being..." or "A compound having the formula I..." are acceptable.

11.03.02 Ambiguity in claims

The claims must be framed in distinct and clear language. They should not include vague or equivocal forms of wording which will create doubt. Examples of unclear language are relative terms or expressions such as "thin", "strong", "a major part", "if desired". If such expressions appear in a claim, they must be further defined in clear and distinct terms or be removed from the claim.

The following are some of the most commonly used imprecise terms that may be encountered in claims:

a) "Such as", "Or the like", "For example".
b) "If desired", "When required".
c) "About", "Approximately", "More or less".
d) "Preferably".

Other terms which in certain circumstances may be indefinite are:

a) "Containing as an active ingredient".
b) "Therapeutically effective amount".
c) "A major part".
d) "Of the character described", "As herein described".
e) "At least", "At least one of".
f) "And/or", "Either....or".
g) "An effective amount", "A sufficient amount", "A synergistic amount".
h) "Not being...", "Not having...", "Not requiring...".

Whenever any of the above terms is encountered in a claim, a possibility exists that the claim may not satisfy the requirements of the *Patent Act* and Rules. Specifically, subsection 27(4) of the *Patent Act* and Section 84 of the *Patent Rules* should be considered.

Some of these terms have been considered in decisions by the courts or by Commissioner's decisions.

a) <u>"Containing as an active ingredient"</u>

This phrase should, in some circumstances be refused as being ambiguous and indefinite because "an" implies the presence of other unspecified active ingredients in addition to the one specified in the claim.

Note: This phrase would be acceptable in a claim if "an" is changed to "the" and the other ingredients of the composition are specified while the utility for which the composition is intended is either inherent from the wording of the claim or expressly stated therein (Rohm & Haas v. Commissioner of Patents 30 C.P.R. 113, Ex.C.).

(b) "Therapeutically effective amount"

As was stated in Gilbert v. Sandoz 64 C.P.R. 14, Ex.C., this is an ambiguous term in a claim. The claims in suit included this phrase in conjunction with a particular phenothiazine derivative when produced by specified process claims in association with a pharmaceutical carrier. While it is recognized that the essence of a great many inventions based on compounds for medicinal purposes resides more in the discovery of the unexpected medicinal utility of the compound than in its effective dose, nevertheless, when such a functional statement occurs in a claim, the medicinal utility of the composition of matter must be stated or be inherent from the preamble of the claim.

A particular amount of an active ingredient in combination with another compound (X) may have an entirely different therapeutic value than a very different amount of the same active ingredient in combination with compound X. Therefore, this functional phrase should only be permitted in a composition of matter claim when the utility of the composition of matter is indicated in the claim and provided that the actual amount taught and prescribed in the disclosure is not an important aspect of the invention. This amount may vary over a considerable range apparent to one skilled in the art because of similar known ranges for analogous compounds for the same purpose. However, if the disclosed range is an important feature of the invention or if the invention is only operable within a prescribed range so as to produce the promised results, then of course

this disclosed range must be included in all of the independent claims.

(c) "A major part"

This is an acceptable phrase in a claim if it is used in relation to one part of a two- part system where it is clear that it means more than 50%. However, when it refers to one part in a system consisting of three or more parts, it is refused as indefinite because it is not clear if it means a greater percentage than any of the other components or more than 50% of the overall total.

11.03.03 Negative limitations

Claims containing negative expressions such as "not being...", "not having...", "not requiring..." may be objectionable under section 27(4) of the *Patent Act* in that claims should generally set forth what the invention is or does, and not what it is not or does not do, unless there is no positive way to describe it. Sometimes a dependent claim (Chapter 11.06) contains provisions which effectively cancel or negate some of the features of a preceding claim, thus making the dependent claim broader than the preceding claim. This is objectionable under section 87 of the *Patent Rules*.

11.04 Completeness of claims

To define the invention distinctly and in explicit terms, it is required that sufficient elements be recited for operability. The inventive features must appear in each claim . In the case of a composition, a claim must define a minimum of two ingredients, at least broadly. If a claim does not do this, it is objected to as indefinite and contrary to subsection 27(4) of the *Patent Act*.

11.05 Support

A claim must be fully supported by the description as required by section 84 of the

Patent Rules. All the characteristics of the embodiment of the invention which are set forth in the claim must be fully set forth in the description (Section 84 of the *Patent Rules*). However, since the claims included in the application at the time of filing are part of the specification (see definition of specification in section 2 of the *Patent Rules*), any matter in the originally filed claims that was not included in the description as filed may be added to the description.

A claim is objected to for lack of support by the description if the terms used in the claim are not used in the description and cannot be clearly inferred from the description. Terms used in the claims and in the description must be used in the same sense.

11.05.01 Claims referring to description or drawings

It is generally not acceptable for a claim to contain reference to the description or drawings (subsection 86(1) of the *Patent Rules*). However, in some instances, if the claim is complete in itself and can be read and understood without the reference, the claim is acceptable. The claims must not, in respect of the technical features of the invention, rely on references to the description or drawings except where absolutely necessary. In particular, they must not rely on references such as: "as described in the description " or "as illustrated in Figure 3". The following are examples of exceptions:

(a) Claims which include reference numerals

Reference numerals used in the drawings are permissible in a claim provided they are in brackets or parenthesis (subsection 86(2) of the *Patent Rules*), and the claim is otherwise explicit and complete. However, if a claim is not complete without referring to the parts of the drawings identified by numerals in brackets, it must be objected to as contravening subsection 27(4) of the *Patent Act*.

(b) Claims which make reference to charts, tables and graphs

Tabulations in the form of charts often appear in the descriptions of applications. Such tabulations may also be included in the drawings as are graphs, phase diagrams, absorption spectrograms and the like. In circumstances where the nature of the invention is very complex and it is practically impossible or extremely cumbersome to define the scientific relationship of the different factors

in a precise and distinguishing manner, without making reference to other parts of the application, then reference to charts, graphs or tables may be permitted in the claims. However, if such a chart or table, for example, is brief and concise, i.e. about 5-10 lines, the applicant may be required to enter it into the claims (subsection 86(1) of the *Patent Rules*).

(c) Reference to particular unconventional disclosed tests

If a test can be accurately defined in a few lines, then it must be included in the claim and a mere reference to such a test as described should not be permitted. However, when such a test is complex and lengthy to describe, for example if it requires more than one page of the description to characterize it, then the applicant may make reference to the test as therein defined rather than reproduce the test in the claim.

(d) Reference to Sequence listings and Biological Deposits

Reference may be made, within a claim, to sequence listing identifier numbers and biological deposit catalogue numbers (subsections 86(3) and (4) of the *Patent Rules*). These procedures are specified in detail in chapter 17 (Biotechnology).

11.05.02 Scope in relation to description

A claim may be as narrow as the applicant wishes within the scope of the invention disclosed. It must not, however, be broader than the invention as described or supported by the description. Furthermore, a claim will fail if, in addition to claiming what is new and useful, it also claims something that is old or useless (Mineral Separation v. Noranda Mines 12 C.P.R. 99; 12 C.P.R. 182; 15 C.P.R. 133).

Each claim must be read giving its words the meaning and scope which they normally have in the relevant art, unless in particular cases the description gives the words a special meaning by explicit definition. If a claim covers subject matter outside the scope of the described invention, it should be objected to for failing to satisfy the provisions of section 84 of the *Patent Rules*.

11.05.03 Ranges not specifically described

When an application includes claims containing a specific limitation with respect to operating conditions, which limitation falls within a broader range described, no objection is made to the narrow claim solely on the grounds that it is not specifically shown in the description or that the description does not indicate the significance of the described range. For example, an application may describe a process carried out within certain temperature limits, e.g. between 500°C and 800°C. No objection is made if some claims are directed to the process carried out between 500°C and 800°C and others to the process carried out at a temperature falling within a smaller range within the described range, e.g. between 650°C and 700°C. However, should the broad claim fall in view of prior art, the narrower claim would also fall unless it can be shown that by restricting the process to the narrower range, a new and unobvious result is obtained.

11.06 Dependent claims

Section 87 of the *Patent Rules* permits a claim to refer to one or more other claims, in order to define an invention more narrowly by adding further characteristics to those already present in the claims to which reference is made. Such a claim is designated as a dependent claim.

Claims are also permitted to refer to other claims or parts of claims of the same or of another category, in order to avoid repeating lengthy definitions already given and to simplify claiming, provided they do not become ambiguous as a result of such dependency, thereby contravening section 27(4) of the *Patent Act*. Such claims however are not dependent claims and section 87 of the *Patent Rules* does not apply. The patentability of the claim referred to does not necessarily imply the patentability of the dependent claim containing the reference. The following example indicates the form of claiming that is acceptable.

Claim 1: A product comprising composition A.

Claim 2: A process for the production of the composition defined in claim 1 comprising reacting B with C.

An objection is made whenever there is uncertainty as to which part of a preceding claim reference is made or whenever a dependent claim of one category, such as a process, contains by reference so many limitations of another category, such as a product, that it becomes difficult to determine which category the claim covers.

A dependent claim usually refers to other claims in its preamble. In view of subsection 87(1) of the *Patent Rules*, a dependent claim must state the additional features claimed. According to subsection 87(3) of the *Patent Rules*, a dependent claim is understood as including all the limitations inherent in the particular claim or claims in relation to which it is considered. When a claim refers to other claims it must only refer to preceding claims and it must do so to by number.

Examples:

Claim 1: The process of reacting A with B in the presence of a catalyst. (acceptable)

Claim 2: The process of reacting A with B in the presence of a metal containing catalyst. (acceptable)

Claim 3: The process of claim 2 in which the catalyst contains iron. (acceptable)

Claim 4: The process of claim 3 in which the catalyst also contains copper. (acceptable)

Claim 5: The process of claim 1, 2, 3, or 4 in which the catalyst also contains zinc. (acceptable)

Claim 6: The process of any one of claims 1 to 5 in which the catalyst also contains cobalt. (acceptable)

Claim 7: The process of any of the above claims in which the catalyst is supported on an inert carrier. (not acceptable)

Claim 8: The process of claim 5 in which the catalyst is supported on an inert carrier. (acceptable)

Claim 9: The process of claim 6 in which the catalyst is supported on an inert carrier. (acceptable)

Claim 10: The process of claim 8 or 9 in which the inert carrier is a silica. (acceptable)

Claim 11: The process of claims 3 and 4 in which the catalyst also contains manganese. (acceptable)

In the examples given above, no objection would be taken to claims 1-6 and 8-10 in view of the provisions of section 87 of the *Patent Rules*. In contrast, claim 7 which does not refer to the preceding claims by number, would, consequently, violate subsection 87(1) of the *Patent Rules* and would therefore be objected to.

The form of dependent claims accepted under section 87 of the *Patent Rules* will be considered acceptable in all applications presently pending in the Patent Office.

11.07 Combinations

A combination is a union of elements or process steps co-operating to produce a unitary and practical result that is not the sum of the known characteristics of the elements or steps.

A patentable combination is one in which the elements or steps cooperate in an unexpected manner or cooperate in a known way to give an unobvious result or effect. If all the requirements of the *Patent Act* and Rules are met, a claim to such a combination can be allowed.

A subcombination is part of a combination. It may be a single element or step of the combination or may, itself, be a combination.

11.07.01 Exhaustive combinations

Claims must not exceed the scope of the invention by going further than the protection to which the inventor is entitled. Generally, an inventor is entitled to claim the invention,

be it apparatus, product or method and its immediate and cooperating environment. For example, claims to a new accelerator pump and the carburetor containing it are permitted. Also, claims to a new type of radio tube grid may be permitted with claims to the tube containing the grid. But claims to a new pump in a carburetor which is attached to an engine or claims to a radio receiver accommodating a tube having a new grid would be objected to unless the overall combination produced new and unexpected results, amounting to further invention, that may require restriction under section 36 of the *Patent Act*.

11.07.02 Aggregation

An aggregation is not a true combination. It consists of the juxtaposition of parts that do not cooperate to produce a result that is other than the sum of the results of the parts. The function of an aggregation is the sum of the functions of the parts and its result is the predictable sum of the separate results. A mere aggregation of old parts cannot form the basis of a patentable invention.

Claims are objected to when the inventive matter is claimed in association with other elements and it is clear that there is no invention in the aggregation so resulting apart from the inventive matter itself. An applicant who submits claims to a new radio receiver may not submit claims that further define the receiver in terms of a standard chassis or cabinet housing the receiver. However, a new combination of container and receiver that unexpectedly gives new and useful results may be made the subject of a separate application.

11.08 Product claims

In product claims, the product may be defined in three ways:

(i) By structure. In the chemical field this includes empirical formulae, structural formulae, and chemically acceptable names.

(ii) In terms of the process by which it is made. These are known as product-by-process claims.

(iii) In terms of physical or chemical properties.

A claim that defines a product by a mixture of two or three of these forms is also possible.

The most explicit and definite form of claims for a product defines the product by structure. Since, under subsection 27(4) of the *Patent Act*, the applicant is required to distinguish any new product from all other products by claiming it distinctly and explicitly, the structure, if known, should be given in the claim.

11.08.01 Product-by-process claims

A product-by-process claim defines the claimed product wholly or partly in terms of the process used to produce the product. The process limitations may be included within the product claim itself or the whole claim may be made dependent upon another claim directed to the process. The following examples show the two possible forms:

(i) The product made by heating A with B.

(ii) The product when made by the process of claim 1.

The use of past participle adjectives, such as welded, bent, molded or coated, is not construed as changing a product claim into a product-by-process claim.

A product-by-process claim, where permitted, must define the product explicitly and distinguish it from all other products. Hence, products that are already known may not be claimed by making them dependent on a new process (Hoffman-La Roche v. Commissioner of Patents 23 C.P.R. 1).

A product-by-process claim must be directed to the final product of the process claim upon which the product claim is made dependent.

11.09 Means claims

A "means" claim is one in which at least part of an invention is defined as a means or mechanism for performing an act, instead of reciting the element that performs the action.

Invention may exist in a new combination of old means (Lightning Fastener v. Colonial Fastener 51 RPC 349; Martin and Biro Swan v. H. Millwood 1956 RPC 125). Claims composed of more than one statement of old means are allowable, without defining structure, if there is invention in the new combination.

If a claim is composed of a single statement of means, it is objected to for being indefinite and contrary to subsection 27(4) of the *Patent Act*. The report of the examiner should indicate in detail why the claim contravenes subsection 27(4) of the *Patent Act*. It may, for example, be directed to the result desired rather than to the combination developed and illustrated to achieve that result.

A claim is also objected to if it contains a broad means statement at the point of invention, i.e., a statement that distinguishes the claim from the prior art, but which is so broad that it embraces all possible means without qualification for solving the problem facing the inventor and is in effect no more than a restatement of the problem or desired result.

Examples:

An application describes a sanding device that may be used in a direct-drive mode for removing stock from a work piece at a rapid rate or in an orbital mode for removing stock at a much slower rate to provide a smooth finish. The invention lies in the combined use of a known one-way clutch and a known reversible motor in an otherwise conventional rotary sander. Under prior art conditions, either two sanders were used or an attachment was employed to convert a device from a direct-drive sander to an orbital sander.

Claim (i) Means for operating a sanding device in either a direct-drive mode or an orbital mode.

This claim would be objected to under section 27 of the *Patent Act*. The applicant should claim a sander having the combination of a one-way clutch with a reversible motor.

Claim (ii) A surface-finishing device comprising a drive shaft, a driven element connected to receive drive from the drive shaft, a driven shaft mounted for rotation in said driven element about an axis eccentric to the axis of the drive shaft, means connecting the driven shaft to the driven element, a surface-finishing tool connected to be driven by the driven shaft, and automatic means for selectively connecting the surface-finishing tool directly to the drive shaft, or allowing said tool to rotate freely in an orbital path about the drive shaft axis.

This claim would be objected to for merely restating the desired result.

Claim (iii) A surface-finishing device comprising a drive shaft, a driven element connected to receive drive from the drive shaft, a driven shaft mounted for rotation in said driven element about an axis eccentric to the axis of the drive shaft, one-way clutch means connecting the driven shaft to the driven element, a surface-finishing tool connected to be driven by the driven shaft, and means for selectively driving the drive shaft in one direction or in an opposite direction.

This claim would be accepted as a novel combination of known means giving a new and unexpected result.

11.10 Process, method, method of use and use claims

The Patent Office accepts process, method, method of use and use claims as explained under the following subheadings.

11.10.01 Process and method claims

A method is the series of steps to be followed either alone or in conjunction within a process in order to achieve a desired result. A method should be distinguished from a process, which includes the method and the substances to which it is applied. The

overall process may be new even though the method is old.

A claim to a process which consists of applying a known method to chemically react known substances is patentable, providing the method has never before been applied to these substances and results in new, useful and unobvious products. (Ciba Ltd. v. Commissioner of Patents 27 C.P.R. 82; 30 C.P.R. 135).

11.10.02 Method of use and use claims

When a claim to a compound has been found allowable in an application, then a claim to a method of use of that compound or a claim to the use of that compound is also allowable in the same application. When a claim to a compound has been found allowable to the inventor in one application, then claims in a different application of the same inventor to a use of that compound or methods of using that compound which are obvious from the utility disclosed for the compound, and upon which utility the patentability of the compound was predicated, are not allowed.

When a compound has been patented previously or is in the public domain, claims directed to the obvious use of this compound should be objected to for lacking patentable subject matter. Claims directed to a new and unobvious use of the same compound are allowable. Likewise, claims directed to a method of using the compound for a new unobvious purpose are allowable. Furthermore, when an invention is directed to a novel and unobvious use of a known compound, claims to this known compound with the further recitation of a novel use are allowable (re application for patent of Wayne State University 22 C.P.R. (3d) 407).

When a device or machine is only a new instrument for carrying out an old method, only the device or machine can be patented. Since the utility of a device or machine is obvious from the description of the device or machine, the patentability of a method using such device or machine is determined by the state or the art.

Guidelines for method of use claims

(i) Method of use claims directed to medicinal use are rejected under Section 2 of the *Patent Act* in view of Tennessee Eastman v. Commissioner of Patents (1970) 62 C.P.R. 117; (1974) S.C.R. 111.

Example: Method of treating the symptoms of cognitive decline in a patient comprising administering to a patient an effective amount of compound X wherein said compound is used as a cholinergetic agent. (rejected)

(ii) Method of use claims directed to a medicinal treatment should be interpreted to include only those methods directed to curing or preventing diseases in humans or animals. Method claims directed to an industrial use should not be rejected.

Example: Method for enhancing the dressed carcass weight of meat-producing animals by increasing lean meat deposition and improving the lean meat to fat ratio comprising administering to said animals, before slaughter, either orally or parenterally, an effective amount of a compound X. (accepted)

(iii) Other types of method of use claims directed to an industrial use are allowable but must include manipulative steps. (The reasoning for the requirement of the presence of manipulative steps is to distinguish method of use claims from use claims.)

Example: Method of using compound X as an intermediate to prepare compound Y wherein compound X is reduced by hydroboration or catalytic hydrogenation. (accepted)

(iv) Method of use claims incorporating a use are also acceptable as long as they meet the requirement of a proper method claim (i.e., include a manipulative step). (accepted)

Example: Method of controlling agricultural bacteria which comprises incorporating into the locus to be treated an effective amount of compound X wherein said compound is used as a bacterial agent. (accepted)

(v) Similarly, product claims containing either a use or method definition are acceptable, provided that the method is not a method of medical treatment).

Example: Compound X for the use as an insecticide wherein said compound is applied

to the locus of a tree trunk, (accepted).

Example: Compound Y for the treatment of viruses wherein said compound is administered to a patient intravenously, (not accepted because it contains a method of medical treatment).

Guidelines for use claims

(i) Use claims are permitted. Moreover, use claims incorporating method steps are acceptable as long as the use has been clearly identified and it is not a method of medical treatment. If the claim is complete and understandable without the method steps, then the claim as a whole is acceptable. The method steps merely provide a restriction to the previously recited use.

Example: Use of compound X as a herbicide. (accepted)

Use of compound X as a herbicide wherein an effective amount of the compound X is incorporated into the locus to be treated. (accepted)

Use of compound Y as an antiarrhythmic agent. (accepted)

Use of compound Y as an antiarrhythmic agent wherein an effective amount of the compound Y is administered to a patient. (not accepted). The addition of the "wherein" clause makes the use a method of medical treatment.

Use of machine Z for cutting. (accepted)
Use of machine Z for cutting wherein ... (accepted)

11.11 Markush claims

In chemical cases, a claim directed to a genus expressed as a group consisting of certain specified materials is allowable (Ex parte Markush 1925, 340 U.S.O.G. 839) provided it is clear from the known nature of the alternative materials or from the prior art that the materials in the group possess at least one property in common which is mainly responsible for their function in the claimed relationship. Therefore, a Markush

claim will generally be construed with a generic expression covering a group of two or more different materials (elements, radicals, compounds) as illustrated in the following examples:

> A solvent selected from the group consisting of alcohol, ether and acetone...
>
> A strip of a conductive metal selected from the group consisting of copper, silver and aluminium...

Occasionally, the Markush format may be used in claims directed to subject matter in the mechanical or electrical fields in a manner such as that illustrated in the example below:

> A means for attaching a wall panel to a framework wherein the attaching means is **selected from group consisting of** nails, rivets **and** screws...

11.12 Selection patents

A selection from members of a previously known class of substances may be patentable if the substance selected is unobvious and affords a new and useful result. There must be a special advantage arising from the selected substance and any advantage, novel property or use must be fully characterized in the description. The substance should be defined in an explicit manner within the claim.

11.13 Jurisprudence

The following decisions of the courts are of importance in considering the subject matter of this chapter:

claims construction

Mineral Separation v Noranda	12 CPR	99	1950
	69 RPC	81	1952

O'Cedar v Mallory Hardware	ExCR	299	1956
McPhar v Sharpe	35 CPR	105	1960
Metalliflex v Wienenberger	35 CPR	49	1961
	SCR	117	1961
Lovell v Beatty	41 CPR	18	1962
Burton Parsons v Hewlet	1 SCR	555	1976
Xerox v IBM	33 CPR (2d)	24	1977
Cutter v Baxter Travenol	68 CPR (3d)	179	1983
Johnston Controls v Varta	80 CPR (2d)	1	1984
Reading & Bates v Baker	18 CPR (3d)	181	1987
AT&T Tech v Mitel	26 CPR (3d)	238	1989
Energy v Boissonneault	30 CPR (3d)	420	1990
Lubrizol v Imperial Oil	33 CPR (3d)	11	1990
	45 CPR (3d)	449	1992
Computalog v Comtech	32 CPR (3d)	289	1990
	44 CPR (3d)	77	1992
Procter & Gamble v Kimberly	40 CPR (3d)	1	1991
Welcome v Apotex	39 CPR (3d)	289	1991
TRW Inc v Walbar	39 CPR (3d)	176	1991
Martinray v Fabricants	14 CPR (3d)	1	1991
Reliance v Northern Tel	47 CPR (3d)	55	1993
Airseal v M&I Heat	53 CPR (3d)	259	1993
Dableh v Ont Hydro	50 CPR (3d)	290	1993
Unilever v Procter & Gamble	47 CPR (3d)	479	1993
	61 CPR (3d)	499	1995
Nekoosa v AMCA Int	56 CPR (3d)	470	1994
Anderson v Machineries	58 CPR (3d)	449	1994
Pallmann v CAE	62 CPR (3d)	26	1995
Hi-Quail v Rea's Welding	55 CPR (3d)	224	1994
Feherguard v Rocky's	53 CPR (3d)	417	1994
	60 CPR (3d)	512	1995
Cochlear v Coseum	64 CPR (3d)	10	1995
Pallmann v CAE	62 CPR (3d)	26	1995
Almecon v Nutron	65 CPR (3d)	417	1996

positive recitation

Mineral Separation v Noranda	12 CPR	99	1950
	69 RPC	81	1952
Burton Parsons v Hewlet	1 SCR	555	1976
Eli Lilly v O'Hara	20 CPR (3d)	342	1988
	26 CPR (3d)	1	1989
Hi-Quail v Rea's Welding	55 CPR (3d)	224	1994
Pallmann v CAE	62 CPR (3d)	26	1995

antecedents

Mobil Oil v Hercules	57 CPR (3d)	488	1994
	63 CPR (3d)	473	1995

preamble

Re: Lelke	72 CPR (2d)	139	1981
Shell Oil v Comm of Pat	2 SCR	536	1982
Rucker V Gavels Vulcanizing	7 CPR (3d)	294	1985
Permacon v Enterprises	19 CPR (3d)	378	1987
Re: Neuro Med Inc	28 CPR (3d)	281	1988
Computalog v Comtech	44 CPR (3d)	77	1992

explicit, distinct v ambiguous/several interpretations

Rohm & Haas v Comm of Patents	30 CPR	113	1959
Xerox v IBM	33 CPR (2d)	24	1977
Monsanto v Comm of Pat	42 CPR (2d)	161	1979
	2 SCR	1108	1979
Ciba Geigy v Comm of Pat	65 CPR (3d)	73	1982
Pioneer Hi-Bred v Com of Pat	14 CPR (3d)	491	1987
	25 CPR (3d)	257	1987
Reliance v Northern Tel	28 CPR (3d)	397	1989
	44 CPR (3d)	161	1992
	47 CPR (3d)	55	1993
Risi Stone v Groupe Peracon	29 CPR (3d)	243	1990

	65 CPR (3d)	2	1995
Allied v Du Pont	52 CPR (3d)	351	1993
	50 CPR (3d)	1	1993
Mobil Oil v Hercules	57 CPR (3d)	488	1994
	63 CPR (3d)	473	1995

insufficient/sufficient/essential elements

BVD Co V Canadian Celanese	ExCR	139	1936
	SCR	221	1937
Mineral Separation v Noranda	12 CPR	99	1947
	15 CPR	133	1952
Curl Master v Atlas Brush	SCR	514	1967
Burton Parsons v Hewlet	1 SCR	555	1976
Re: Farbwerke Hoechst	13 CPR (3d)	212	1980
Ciba Geigy v Comm of Pat	65 CPR (3d)	73	1982
Consolboard v MacMillan	56 CPR (2d)	145	1981
	1 SCR	504	1981
Ductmate v Exanno	2 CPR (3d)	289	1984
Amfac Foods v Irving Pulp	12 CPR (3d)	193	1986
Crila Plastics v Ninety Eight	10 CPR (3d)	226	1986
	18 CPR (3d)	1	1987
Reliance v Northern Tel	28 CPR (3d)	397	1989
	44 CPR (3d)	161	1992
	47 CPR (3d)	55	1993
TRW Inc v Walbar	39 CPR (3d)	176	1991
Atlas v CIL	41 CPR (3d)	348	1992
Airseal v M&I Heat	53 CPR (3d)	259	1993
Mobil Oil v Hercules	57 CPR (3d)	488	1994
	63 CPR (3d)	473	1995
Feherguard v Rocky's	53 CPR (3d)	417	1994
	60 CPR (3d)	512	1995

operability

Union Carbide v Trans Canadian	ExCR	884	1965

Mineral Separation v Noranda	12 CPR	99	1950
	69 RPC	81	1952
Gilbert (Gillcross) v Sandoz	64 CPR	14	1970
	SCR	1336	1974
Burton Parsons v Hewlet	1 SCR	555	1976
Sandvick v Windsor	8 CPR (3d)	433	1986
Mahurkar v Vas-Cath	18 CPR (3d)	417	1988
Welcome v Apotex	39 CPR (3d)	289	1991
TRW Inc v Walbar	39 CPR (3d)	176	1991
Feherguard v Rocky's	53 CPR (3d)	417	1994
	60 CPR (3d)	512	1995
Mobil Oil v Hercules	57 CPR (3d)	488	1994
	63 CPR (3d)	473	1995

broad

BVD Co V Canadian Celanese	ExCR	139	1936
	SCR	221	1937
Trubenizing v John Forsyth	2 CPR	1	1943
O'Cedar v Mallory Hardware	ExCR	299	1956
Lovell v Beatty	41 CPR	18	1962
Boehringer v Bell-Craig	39 CPR	201	1962
Union Carbide v Trans Canadian	ExCR	884	1965
Hoechst v Gilbert	SCR	189	1966
Gilbert v Sandoz	64 CPR	14	1970
Burton Parsons v Hewlet	1 SCR	555	1976
Monsanto v Comm of Pat	42 CPR (2d)	161	1979
	2 SCR	1108	1979
Re: American Home Products	55 CPR (2d)	238	1980
Re: Farbwerke Hoechst	13 CPR (3d)	212	1980
Cutter v Baxter Travenol	50 CPR (2d)	163	1980
	68 CPR (3d)	179	1983
Johnston Controls v Varta	80 CPR (2d)	1	1984
Sandvick v Windsor	8 CPR (3d)	433	1986
Amfac Foods v Irving Pulp	12 CPR (3d)	193	1986
Cabot Corp v 318602 Ont	20 CPR (3d)	132	1988

Mahurkar v Vas-Cath		18 CPR (3d)	417	1988
Reliance v Northern Tel		28 CPR (3d)	397	1989
		44 CPR (3d)	161	1992
		47 CPR (3d)	55	1993
		55 CPR (3d)	299	1994
Risi Stone v Groupe Peracon		29 CPR (3d)	243	1990
Lubrizol v Imperial Oil		33 CPR (3d)	1	1990
		45 CPR (3d)	449	1992
Welcome v Apotex		39 CPR (3d)	289	1991
Dableh v Ont Hydro		50 CPR (3d)	290	1993
Unilever v Procter & Gamble		47 CPR (3d)	479	1993
		61 CPR (3d)	499	1995
Mobil Oil v Hercules		57 CPR (3d)	488	1994
		63 CPR (3d)	473	1995
Nekoosa v AMCA	Int	56 CPR (3d)	470	1994
Pallmann v CAE		62 CPR (3d)	26	1995
Almecon v Nutron		65 CPR (3d)	417	1996

<u>selection/improvement</u>

Sherbrooke v Hydrolic		Ex CR	114	1927
Bergeon v De Kermor		Ex CR	181	1927
Western Electric v Bell		Ex CR	213	1929
Wandscheer v Sicard		SCR	1	1948
K v Uhleman Optical		Ex CR	142	1950
		1 SCR	143	1952
O'Cedar v Mallory Hardware		Ex CR	299	1956
Ciba Geigy v Comm of Pat		27 CPR	82	1957
		30 CPR	135	1959

<u>aggregation/combination</u>

Lightning Fastener v Colonial		Ex CR	89	1932
		SCR	63	1933
		51 RPC	349	1934
Crosley Radio v CGE		SCR	551	1936

Lanlois v Roy	Ex CR	197	1941
Lester v Comm of Pat	Ex CR	603	1946
Wandscheer v Sicard	Ex CR	112	1946
	SCR	1	1948
R v Uhleman Optical	Ex CR	142	1950
	1 SCR	143	1952
Defrees v Dominion Auto	Ex CR	331	1963
Barton v Radiator Specialty	44 CPR	1	1965
Gibney v Ford	2 Ex CR	279	1972
Rubbermaid v Tucker Plastics	8 CPR (2d)	6	1972
Agripat v Comm of Patents	52 CPR (2d)	229	1977
Domtar v MacMillan	33 CPR (2d)	182	1977
Xerox v IBM	33 CPR (2d)	24	1977
Ductmate v Exanno	2 CPR (3d)	289	1984
Windsurfing v Triatlantic	3 CPR (3d)	95	1984
Hy Kramer v Lindsay	9 CPR (3d)	297	1986
Crila Plastics v Ninety Eight	10 CPR (3d)	226	1986
	18 CPR (3d)	1	1987
Hoffman-La Roch v Apotex	15 CPR (3d)	217	1987
	24 CPR (3d)	289	1989
Standal v Swecan	28 CPR (3d)	261	1989
Imperial Tobacco v Rothmans	47 CPR (3d)	188	1993

Chapter 12
Utility and subject matter

12.01 Scope of this chapter

This chapter outlines the Patent Office's practice concerning subject matter and utility requirements under section 2 of the *Patent Act*, divorced from considerations of novelty and obviousness [1].

12.02 Definition of a statutory invention

Section 2 of the *Patent Act* defines invention. It reads in part:

> "invention" means any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in any art, process, machine, manufacture or composition of matter.

From this statutory definition and other sections of the *Patent Act*, the criteria for a patentable invention are [2]:

1) Novelty. The invention must not have been "anticipated" by another patent or a publication that would show it lacks novelty under that statute.

2) Utility. The invention must be operative, controllable and reproducible.

3) Statutory subject matter. It must fit in a recognized category, for not all subject-matter is patentable.

4) Non obviousness or inventive ingenuity. There must be an inventive step. *This is a question of fact and degree* [3]. The fact is that there must be an advance in the art to the degree that it is neither "obvious" nor merely a "workshop improvement" (section 15.01.02 herein).

Even when subject matter is novel and unobvious, it can still be non-patentable if it does not fit in a recognized category (sections 12.02.01 and 12.04 herein), or is not useful

(section 12.03 herein).

12.02.01 Subject matter defined in section 2 of the *Patent Act*

An “art” is an act or series of acts performed by some physical agent upon some physical object and producing in that object some change of either character or condition [4]; “art” overlaps but does not eclipse “process” [5]; an “art” must be a manual or productive art (it must make a vendible product) [6] and/or be a new and innovative method of applying skill or knowledge that produces an essentially economic result relating to trade, commerce, or industry (it must be a method of operating or using an invention) [7].

A “process” may be defined as a mode or method of operation by which a result or effect is produced by physical or chemical action, by the operation or application of some element or power of nature or one substance to another. It implies the application of a method to a material or materials [8].

A “machine” is the mechanical embodiment of any function or mode of operation designed to accomplish a particular effect.

A “manufacture” is the process of making articles or material (in modern use on a large scale) by the application of physical labour or mechanical power, or the article or material made by such a process; excludes higher life forms [9].

“Composition of matter” includes chemical compounds, compositions and substances.

12.02.01a An essentially economic result explained

To be considered as any one of an “art”, “process”, or manner of “manufacture” under section 2 of the *Patent Act*, a method must produce an essentially economic result in relation to trade, commerce, or industry, in the meaning given those words by the Courts [10]; no other methods are statutory subject matter. This means that, to be considered statutory subject matter, a method must be at least one of the following:

i) a method for producing, making, constructing, or building a vendible product;
ii) a method of using or operating an inventive “thing”, or a known “thing” for an inventive new use; or
iii) a method of diagnosing a physical disease or physical medical condition in a

human being.

i) a method for making a vendible product

Court cases like *Lawson* and *Tennessee Eastman* demonstrated that for a method to be statutory subject method, it had to be a "manual or productive art" that made or produced a vendible product [11]. Such a method was automatically considered to produce an essentially economic result in relation to trade, commerce, or industry [12].

Any method that produces, builds, constructs, or manufactures a vendible product, or that alters a vendible product such that it becomes functionally (as opposed to, e.g. intellectually or aesthetically) different from what it was originally, is usually considered to be a method that makes a vendible product. In this context, "vendible product" is broad enough to encompass any "machine", article of "manufacture", or "composition of matter" as defined in section 2 of the *Patent Act*, as well as plants and animals [13]. Methods that were not "manual or productive arts" were called "professional skills or arts" [14]. Note that whether or not a method was a "professional skill" had absolutely nothing to do with whether or not the method was reliably reproducible [15].

ii) a method of operating or using an invention

In *Shell*, the Supreme Court quoted from *Lawson* and *Tennessee Eastman*, and repeated that professional skills and methods that produced no economic result relating to trade, commerce, or industry were unpatentable [16]. However, the Supreme Court defined statutory subject matter as encompassing not only methods of making vendible products, but also "new and innovative methods of applying skill or knowledge provided they produced effects or results commercially useful to the public" [17]. That is to say, statutory subject matter encompasses new and innovative methods of applying skill or knowledge that produce essentially economic results in relation to trade, commerce, or industry, as well as methods of making a vendible product.

Given the subject matter in *Shell* and subsequent court cases that referred to "new and innovative methods of applying skill or knowledge", this expression is considered to apply to methods of using or operating known things for non-analogous (or inventive) new uses [18]. This interpretation is reinforced by the need for a "new and innovative method of applying skill or knowledge" to contribute to the cumulative wisdom on a patentable subject [19]. By extension, methods of operating or using inventive things would also qualify as statutory subject matter; this corresponds with the Patent Office's

traditional practice of allowing claims to methods of operating inventive machines [20].

Although the Courts have not always embraced the possibility that a method that does not manufacture or make anything could still be patentable [21], there is much jurisprudence that has stated that this is so [22]. Therefore, it is the position of the Patent Office that methods of operating or using inventions are to be treated as statutory subject matter.

iii) a method of diagnosis

Finally, the Commissioner decided in 1973 that he considered methods of diagnosing a physical disease or physical medical condition in a human being, provided that no steps of surgery or therapy are involved, to produce an essentially economic result in relation to trade, commerce, or industry [23]. In light of *Shell*, the Patent Office considers such diagnostic methods to be characterized as new and innovative methods of applying skill or knowledge that produce essentially economic results relating to trade, commerce, or industry.

In summary, one of the criteria for a method to be considered statutory subject matter is that it must produce an essentially economic result in relation to trade, commerce, or industry, in the meaning given those words by the Courts. In plain language, that means that a statutory method must be at least one of:

i) a method for producing, making, constructing, or building a vendible product;
ii) a method of using or operating an inventive “thing”, or a known “thing” for an inventive new use; or
iii) a method of diagnosing a physical disease or physical medical condition in a human being.

12.03 Utility

Section 2 of the *Patent Act* requires an invention to have utility. The use of the invention is not necessarily stated in the claims [24], but must be apparent from the description to one skilled in the art [25] (see also chapter 9 herein on Description and subsection 27(3) of the *Patent Act*). However, where the invention is a new use for an old product, the claims must indicate the new use [26].

In practice, subject matter, for which utility is not apparent from the specification to one skilled in the art [27], that is inoperative [28], has results that cannot be reproduced, or that does not have results beneficial to the public [29] will be considered not to comply with the definition of invention under section 2 of the *Patent Act*. An invention must be useful for some purpose but not any particular purpose unless a certain utility is provided in the specification [30]. A claim defining subject matter that is, in view of the description, lacking some of the features or elements that are necessary or essential for the subject matter to be useful as taught will be considered to lack support for utility under section 84 of the *Patent Rules* (see Chapter 11 herein).

12.03.01 Predicted utility

If utility of the subject matter which forms the basis of a claim is not apparent or the promised utility of the subject matter is in doubt, then the applicant must have established utility, at the claim date, either by demonstration (i.e. testing the invention and conclusively proving utility) or by sound prediction [31]. *Unless the inventor is in a position to establish utility as of the time the patent is applied for, on the basis of either demonstration or sound prediction, the Commissioner "by law" is required to refuse the patent [32]*. It is not necessary for an inventor to provide a theory of why the invention works, but the "Doctrine of Sound Prediction" must not be diluted to include "a lucky guess or mere speculation" [33].

An invention that relies on sound prediction must satisfy three requirements:

1) there must be a **factual basis** for the prediction;
2) the inventor must have at the date of the patent application an articulable and **"sound" line of reasoning** from which the desired result can be inferred from the factual basis; and
3) there must be **proper disclosure** by a full, clear and exact description of the nature of the invention and the manner in which it can be practised.

The Doctrine of Sound Prediction applies not only to patent applications containing broad classes of chemical compounds, but also to new uses of known compounds and new uses of novel compounds. As long as the utility of the claimed subject matter relies on sound prediction, the requirements of the doctrine must be fulfilled.

For example, the *Monsanto [34a]* and *Burton Parsons [34b]* decisions dealt with novel compounds and novel electrocardiograph creams, respectively. The factual basis in

these cases was supplied by tested compounds, but other factual underpinnings, depending on the nature of the invention may suffice. The line of reasoning was based on “structure-activity relationship” but other lines of reasoning, depending on the subject matter, may suffice.

12.03.02 Operability

The subject matter must be operable [35] by the means described by the inventor so that the desired result inevitably follows when it is put into practice [36]. The subject matter will be considered to lack utility if the invention does not work [37], either in the sense that it will not operate at all or, more broadly, that it will not do what the specification promises that it will do [38]. The specification has to include the information, terminology, and means available at the time of the claim date, to provide sufficient description to enable the making of the invention, when read by a person skilled in the art.

12.03.03 Reproducibility

The invention must be controllable [39] and its result reproducible by the means described so that the desired result inevitably follows when the invention is put into practice [40]. However the expression “desired result inevitably follows” can refer to an accepted degree of success of a particular repetitive mass production method. For example, if a method is known and universally recognized in a particular art of having a success rate under a certain ratio or percentage of rejects, the desired result inevitably follows if this method is inside such parameters.

A process which includes a mental step involving the ascertaining and sensing facilities is patentable (provided all other attributes of patentability are present), since the effect of the mental step is precise and predictable no matter how skillfully it is performed. On the other hand, a process which includes a mental step, the nature of which is dependent upon the intelligence and reasoning of the human mind cannot satisfy the requirements of operability since the effect of the human feedback or response is neither predictable nor precise whenever the process is worked by its users [41].

Subject matter that accomplishes a result by means of a person's reasoning, in which the quality or character of the result may vary depending upon the individual having ordinary skill in the art performing the process or method, cannot form the basis of a patent. Human factors induce variation in the results due to different level of intuition, creativity, conjecture and approximation, and therefore lead to irreproducible results. A

person's reasoning may include judgement and interpretation.

12.04 Further guidance for certain subject matter

Not all subject matter is patentable. Some subject matter is excluded by subsection 27(8) of the *Patent Act*, and under section 2 of the *Patent Act* based on clarifications of the definition of invention by Jurisprudence.

12.04.01 Living matter

Uni-cellular life forms which are new, useful and inventive are patentable [42]. In general, a process to produce, or which utilizes, these organisms is patentable. Uni-cellular life forms include:

- **$** microscopic algae;
- **$** moulds and yeasts [43];
- **$** bacteria;
- **$** protozoa;
- **$** viruses;
- **$** cells in culture;
- **$** transformed cell lines; and
- **$** hybridomas.

Higher life forms are not patentable subject matter [44]. However, a process for producing higher life form may be patentable provided the process requires significant technical intervention by man and is not essentially a natural biological process which occurs according to the laws of nature, for example, traditional plant cross-breeding [45]. Higher life forms include:

- **$** animals [46];
- **$** plants [47];
- **$** seeds [48]; and
- **$** mushrooms [49].

Plant varieties that are distinct, uniform and stable may be protected under the Plant Breeders' Rights Act, administered by the Canadian Food Inspection Agency.

12.04.02 Medical treatment

A method or process of surgery or therapy on living humans or animals is not considered to be within the scope of "invention" as defined by section 2 of the *Patent Act*, because such methods do not produce an essentially economic result in relation to trade, industry, or commerce [50]. However, methods of treating animals to derive an economic benefit are not excluded [51]. If, when used for its leading purpose, a claimed method does not produce an essentially economic result, then that method is non statutory even if it could have other purposes [52]. Articles or apparatuses designed for use in the treatment of humans or animals are patentable, provided they conform to all other conditions of the *Patent Act* [53].

Methods of diagnosing a physical disease or physical medical condition in a human being, provided that the methods do not contain any step of surgery or therapy, may be patentable [54]. The Patent Office practice regarding medical treatment is explained in more detail in Chapter 17 herein (currently under revision).

12.04.03 Scientific principle or abstract theorem

Subsection 27(8) of *Patent Act* specifically precludes "any mere scientific principle or abstract theorem" from patentability. Mathematical formulae [55] and algorithms are considered equivalent to mere scientific principles or abstract theorems (see also section 16.05.01 herein).

12.04.04 Business methods

The expression "business methods" refers to a broad category of subject matter which often relates to financial, marketing and other commercial activities. These methods are not automatically excluded from patentability, since there is no authority in the *Patent Act* or *Rules* or in the jurisprudence to sanction or preclude patentability based on their inclusion in this category. Patentability is established from criteria provided by the *Patent Act* and *Rules* and from Jurisprudence as for other inventions. Business methods are frequently implemented using computers. Guidelines regarding computer implemented inventions are discussed in section 12.04.05 and Chapter 16 herein.

12.04.05 Computer implemented inventions

Claims consisting solely of code listings are not patentable. Software expressed as lines of code or listings may be protected as literary works under the *Copyright Act*. Software in the form of an abstract theorem or algorithm is automatically excluded from patentability under subsection 27(8) of the *Patent Act*, but software that has been integrated with a traditionally patentable subject matter may be patentable. The Patent Office practice regarding computer implemented invention is explained in more detail in Chapter 16 herein.

12.04.06 Games

A method for playing a game with a gaming apparatus or article is only patentable when the apparatus or article is new and inventive, or the apparatus or article is being used for a new and non-analogous use [56].

A method of playing with a conventional deck of cards in a new way is considered non-statutory subject matter because the deck of cards is being used for a known use. The cards lack novelty and inventiveness therefore indicating that the nature of the subject matter is the method or the rules for playing the game. The same principle applies to slot machines with bonus games. For example, programmable slot machines typically accept input, perform calculations, output certain results, and dispense winnings according to certain probabilities. Changing the probabilities, changing the calculations performed, adding a bonus game, etc. in order to attract or entertain more players does not result in an inventive use - the slot machine is still being used in an analogous manner for an analogous purpose [57].

A new arrangement of printed or design matter may form the subject matter of a patent if it performs a mechanical function or purpose in consequence of use [58]. The new arrangement of printed matter must import some functional limitation in a combination so as to produce a unitary result, which is useful in some practical way, as opposed to solely intellectual, literary or artistic connotations [59]. If the novelty lies solely in the meaning of the printed words or the aesthetic appeal of the printed or design matter, it is not considered patentable subject matter. Such matter is also referred to as non-functional descriptive matter.

A method of playing a board game or a game involving cards is considered to be patentable subject matter if the game board or cards are themselves novel and

inventive. This can occur if the board or cards bear a new arrangement or design that provides some inventive functional use.

12.05 Examples of subject matter lacking utility or not recognized as statutory subject matter

To summarize, in assessing whether subject matter falls within the definition of invention under section 2 of the *Patent Act* and by jurisprudence from Canadian Courts, the Patent Office will determine:

(a) whether the subject matter relates to a useful art (as distinct from a fine art where the result produced is solely the exercise of personal skills, mental reasoning or judgment, or has only intellectual meaning or aesthetic appeal);

(b) whether the subject matter is operable, controllable [60] and reproducible by the means described by the inventor so that the desired result inevitably follows whenever it is worked;

(c) whether the subject matter has an essentially economic result relating to trade industry or commerce [61], provided that the process is an innovative method of applying skill or knowledge, and

(d) whether it is more than a mere scientific principle or abstract theorem (subsection 27(8) of the *Patent Act*).

Some examples of subject matter that lack utility or that are not recognized as statutory subject matter include the following:

$ Process or the product of a process, that depends entirely on artistic, personal skills, performing purely mental acts, mental reasoning [62] or judgment, or has only intellectual meaning or aesthetic appeal [63], for example: procedures for exercising, teaching, cosmetological procedures, hair dressing, pedicure, flower arranging, painting pictures or playing musical instruments may not be patentable. However, materials and instruments used in these arts may be patentable. The subject matter must relate to a “useful art”, as distinct from a fine art where the result produced is solely the exercise of the preceding inputs.

- **$** Intermediate transitory product with no inherent commercial use per se [64], or to the internal convenience of a particular manufacturer [65].

- **$** Printed matter, design matter or presentation of information having intellectual connotations or aesthetic appeal. However, structural features of printed matter and arrangements specially adapted to produce a new mechanical function or purpose may be patentable.

- **$** Mere schemes [66], plans [67], speculations [68] or ideas [69] such as a rule for doing business, a method of accounting or providing statistics, a personality or I.Q. test and the like.

Endnotes for Chapter 12

1 Utility, novelty and unobviousness have to be present to constitute a patentable invention:
Langlois v. Roy [1941] Ex. C.R. 197 at p. 203
Northern Electric Co. v. Brown's Theatres Ltd. [1941] SCR 224
Wright v. Brake Service Ltd. (1925) Ex. C.R. 127 at 131, aff'd [1926] SCR 434 at 444

2 *Cochlear Corp. v. Cosen Neurostim Ltée* (1995) F.C.J. No. 1433 at para 91, also indexed as [1995] 64 C.P.R. (3d) 10

3 *Ibid.*

4 Although the Supreme Court stated in *Shell* (67 C.P.R. (2^{d}) 1 at 10-11) that "art" must be given its general connotations of being learning or knowledge as commonly used in expressions such as "the state of the art" or "the prior art", the Court emphasized (at 11, 14) that an "art" had to have a method of practical application. The Court also stated (at 15) that the Exchequer Court (in *Tennessee Eastman*) had affirmed that "art" was a word of very wide connotation and was not to be confined to processes or products or manufacturing techniques but extended as well to new and innovative methods of applying skill or knowledge provided they produced an economic result in relation to trade, commerce, or industry. Note that, with the exception of products, each of these terms refers to a type of method. The Supreme Court has subsequently shown in *Harvard* (21 C.P.R. (4th) 417 at 477) that it does not consider products (i.e. "compositions of matter" and articles of "manufacture") to be encompassed by "art". In *Shell*, the Supreme Court ultimately went on (at 15) to approvingly quote from the Exchequer Court in *Lawson* and *Tennessee Eastman* that an "art" is an act or series of acts performed by a physical agent upon some physical object and producing in that object some change of either character or condition.

5 *Refrigerating Equipment Ltd. v. W.A. Drummond and Waltham System* [1930] Ex. C.R. 154 at 166; *Harvard College v. Commissioner of Patents* [2002] 21 C.P.R. (4th) 417 (S.C.C.) at 479, also indexed as [2002] 4 S.C.R. 45

6 *Lawson v. Commissioner of Patents* [1970] 62 C.P.R. 101 (Ex. Ct.) at 110-111; *Tennessee*

Eastman v. Commissioner of Patents [1970] 62 C.P.R. 117 (Ex. Ct.) at 154-155, aff'd [1972] 8 C.P.R. (2d) 202 (S.C.C.)

7 *Shell Oil v. Commissioner of Patents* [1982] 67 C.P.R. (2d) 1 (S.C.C.) at 15, also indexed as [1982] 2 SCR 536

8 *Commissioner of Patents v. Ciba Ltd.* [1959] 30 C.P.R. 135 aff'g 27 C.P.R. 82

9 *Harvard College, supra* note 5 at 478-479

10 *Tennessee Eastman, supra* note 6; *Shell, supra* note 7 at 14-16; *Imperial Chemical Industries Ltd. v. Commissioner of Patents* (1986) 9 C.P.R. (3rd) 289 (F.C.A.) at 295-296; *Apotex v. Wellcome Foundation Ltd.* (2002) 21 C.P.R. (4th) 499 (S.C.C.) at 519, aff'g (2000) 10 C.P.R. (4th) 65 (F.C.A.), allowing appeal in part (1998) 79 C.P.R. (3rd) 193 (F.C.T.D.)

11 *Lawson, supra* note 6; *Tennessee Eastman, ibid.* at 129-155. It has been argued that *Lawson* showed that producing a "vendible product" was not a requirement for a method to be patentable; this view originated with the editorial note that accompanied the published *Lawson* decision. Actually, what the Court stated was that a *new* vendible product was not required if the claim was to an inventive method - the method still had to produce some sort of vendible substance, whether that substance be new or old (62 C.P.R. 101 at 109-110). This is also clear from the Court's subsequent deliberations on whether or not the method for subdividing land "manufactured" anything, and whether or not there was any change in the character or condition of the land. Ultimately, the Court decided that the preparation of a plan of subdivisions in no way changed the character of the land (62 C.P.R. 101 at 112).

12 *Ibid.*; *Tennessee Eastman, ibid.* at 154-155

13 *Ibid.* at 109-116; *Tennessee Eastman, ibid.* at 129-155; Re Application 862,758 for *Swine Feeds* (now patent 882,618) [1970] C.D. No. 33; Re Application 954,851 for *Method for Feeding Domestic Animals* (now patent 890,188) [1971] C.D. No. 63; *Monsanto Canada v. Schmeiser* [2004] 31 C.P.R. (4th) 161 (S.C.C.).

14 *Ibid.*; *Tennessee Eastman, ibid.* at 154-155

15 There is some confusion on "professional skill", as many believe it to be associated with a method that cannot be reliably reproduced, i.e. it depends upon the skill of the professional performing it. This view originated with the editorial note accompanying the published *Lawson* decision. The reasoning of the editorial was that confusion arose when the Court deemed that requirements for a "manner of new manufacture" under English statutes equated the requirements for an "art, process, machine, manufacture, or composition of matter" under Canadian statutes, and imported reasoning based on English cases. The English "manner of new manufacture" covers the concepts of novelty, utility, and inventive step right along with statutory subject matter, while the requirement for a Canadian "art, process, machine, manufacture, or composition of matter" is considered separate from the requirements for novelty, utility, and inventive step. Thus, the editorial reasoned that professional skills indeed qualified as "arts" under s. 2, but lacked utility because the result following the practice of these arts, no matter how skillfully practised, was not reproducible; the variables arising from the human element make success unpredictable. However, the Court itself did not once refer to reproducibility as an issue, nor did any of the cases that the Court quoted. Furthermore, the method for subdividing land as claimed (and described in

the application) was as reproducible as any regularly patented "art" or "process". Although a method must indeed be reliably reproducible to be considered "useful" under s. 2, this requirement is completely separate from any professional skill considerations. Further evidence that this is the case can be found in such subsequent jurisprudence as *Tennessee Eastman* (62 C.P.R. 117 (Ex. Ct.)), *Shell* (67 C.P.R. (2d) 1), and *Imperial Chemical Industries* (9 C.P.R. (3d) 289).

16 *Shell, supra* note 7 at 15-16. Although the Court appears to have viewed professional skills as being excluded from "useful art" under s. 2 rather than from "art" under s. 2, the weight of the jurisprudence treats professional skills and economic results relating to trade, commerce, or industry as issues of statutory subject matter (e.g. *Lawson* (62 C.P.R. 101),*Tennessee Eastman* (62 C.P.R. 117 (Ex. Ct.)), *Imperial Chemical Industries* (9 C.P.R. (3d) 289), *Apotex* (21 C.P.R. (4th) 499), etc.). Thus, that is also the position of the Patent Office. Either way, professional skills and methods with no "economic results" are still rejected for not complying with s. 2, rendering the issue moot.

17 *Shell, supra* note 7

18 *Ibid.*; *Progressive Games v. Commissioner of Patents* [2000] 9 C.P.R. (4th) 479 (F.C.A.) at 479, aff'g [1999] 3 C.P.R. (4th) 517 (F.C.T.D.), see also the F.C.T.D. case at 523-525

19 *Ibid.* at 11; *Progressive Games, ibid*.

20 Re Application Number 961,392 to *Waldbaum* [1971] 5 C.P.R. (2d) 162 (PAB) at 168

21 *Imperial Chemical Industries Ltd., supra* note 10

22 For example: *Waldbaum, supra* note 20; *Shell, supra* note 7 at 15-16; *Progressive Games, supra* note 18

23 Re Application Number 3,389 to *Organon* [1973] 15 C.P.R. (2d) 253 (PAB), also indexed as [1973] C.D. No. 144; Re Application Number 880,719 to *Brilliant* [1973] 18 C.P.R. (2d) 114 (PAB), also indexed as [1973] C.D. No. 147; Re Application 16,962 for *A Device for Developing the Lungs* (now patent 947,179) [1973] C.D. No. 161

24 *Marzone Chemicals Ltd. v. Eli Lilly & Co.* [1978] 37 C.P.R. (2d) 37 at 38 & 39
Monsanto Canada Inc. v. Schmeiser [2001] 12 C.P.R. (4th) 204 at 216 (see paragraph 26), aff'd [2002] 21 C.P.R. (4th) 1 at pp. 16-18 (see paragraphs 40 to 46)

25 *Consolboard Inc. v. MacMillan Bloedel* (Saskatchewan) Ltd. [1981] 56 C.P.R. (2d) 145 at 153 to 160, also indexed as (1981) 1 SCR 504; *Metalliflex Ltd. v. Rodi & Wienenberger AG* [1961] 35 C.P.R. 49 at p. 53, also indexed as [1961] SCR 117; *Feherguard Products Ltd. v. Rocky's of BC Leisure Ltd.* [1995] 60 C.P.R. (3d) 512 at p. 518; *Burton Parsons Chemical Inc. v. Hewlett-Packard (Canada) Ltd.* [1976] 17 C.P.R. (2d) 97 at p. 104, also indexed as 1 SCR 555; *Monsanto Co. v. Commissioner of Patents* (1979) 42 C.P.R. (2d) 161 at p. 165, also indexed as [1979] 2 SCR 1108

26 *Apotex Inc. v. Wellcome Ltd.* [2000] 10 C.P.R. (4th) 65 at para. 81-85, aff'd [2002] 21 C.P.R. (4th) 499

27 *Marzone, supra* note 24, *Monsanto, supra* note 24

28 *Hoechst Pharmaceuticals of Canada Ltd. v. Gilbert & Co.* [1966] S.C.R. 189 at p. 194; *Lubrizol Corp. v. Imperial Oil Ltd.* [1990] 33 C.P.R. (3d) 1 at pp. 27 & 28, varied [1992] 45 C.P.R. (3d) 449

29 *Organon, supra* note 23

30 *Consolboard, supra* note 25

31 *Apotex, supra* note 10 at 501-502

32 *Ibid.*

33 *Ibid*. at 501

34 a) *Monsanto*, supra note 25
b) *Burton Parsons, supra note 25*
These two preceding decisions were cited to support the definition of sound prediction in *Apotex Inc. v. Wellcome Foundation Ltd*. [2002] 21 C.P.R. (4th) 499

35 Re: Application 312,909, [1980] C.D. No. 703

36 *Northern Electric Co. v. Brown's Theaters Ltd.* [1940] ExCR 36 at 56, aff'd [1941] SCR 224; *Wandscheer et al. v. Sicard Limitée* [1944] 4 C.P.R. 5 at p.15-16, aff'd [1947] 6 C.P.R. 35; *Corning Glass Works v. Canada Wire & Cable Ltd.* [1984] 81 C.P.R. (2d) 39 at p. 42; *Wellcome Foundation Ltd. v. Apotex Inc* [1991] 39 C.P.R. (3d) 289 at 338, aff'd [1995] 60 C.P.R. (3d) 135; *Feherguard Products Ltd. v. Rocky's of BC Leisure Ltd.* [1994] 53 C.P.R. (3d) 417 at 424-425, aff'd [1995] 60 C.P.R. (3d) 512; *Procter & Gamble Co. v. Bristol-Myers Canada Ltd.* [1978] 39 C.P.R. (2d) 145 at pp. 159-160, aff'd [1979] 42 C.P.R. (2d) 33; Re Application 114,647 to *Geenen* (Now patent 1,013,190) [1976] C.D. No. 337; Re Application 2,145,007 to *Meszaros* [2003] C.D. No. 1256; Re Application 474,156 to *Niderost* [1990] C.D. 1159; *Radio Corporation of America v. Hazeltine Corporation* [1981] 56 C.P.R. (2d) 170

37 *Noranda Mines Ltd. v. Minerals Separation North American Corp.* [1947] 12 C.P.R. 102 at pp. 111-112, [1947] Ex. C.R. 306 aff'd [1950] 12 C.P.R. 99, [1950] S.C.R. 36; *Société des usines chimiques Rhone-Poulenc et al. v. Jules R. Gilbert et al.* [1968] 55 C.P.R. 207 at pp. 207 & 208, affirming [1968] 55 C.P.R. 209; Re Application 213,113 to *X* [1978] C.D. No. 509

38 *Consolboard, supra* note 25 at 160

39 *Organon, supra* note 23
Harvard College v. Canada (Commissioner of Patents) [2000] 7 C.P.R. (4th) 1 at paragraphs 68 to 85, also indexed as [2000] 4 F.C. 528, reversed on other grounds [2002] 21 C.P.R. (4th) 417, also indexed as [2002] 4 S.C.R. 45

40 *Northern Electric Co. supra* note 36; *Wandscheer, supra* note 36; *Corning Glass Works*, supra note 36; *Wellcome Foundation Ltd., supra* note 36; *Feherguard Products, supra* note 36; *Procter & Gamble Co., supra* note 36; *Geenen*, *supra* note 36; *Meszaros*, *supra* note 36; *Niderost supra*

note 36; *Radio Corporation of America, supra note 36*

41 Re Application for *Patent containing claims that read on mental steps performed by a human operator in deciding to transmit a signal* [1972] 23 C.P.R. (2^d) 93

42 Re Application of *Abitibi Co*. [1982] 62 C.P.R. (2^d) 81

43 *Monsanto, supra* note 13 at 192

44 *Harvard, supra* note 5; *Pioneer Hi-Bred v. Commissioner of Patents* [1987] 14 C.P.R. (3^d) 491, [1989] 25 C.P.R. (3^d) 257

45 *Pioneer Hi-Bred Ltd. v. Canada (Commissioner of Patents)* [1989] 25 C.P.R. (3^d) 257 at p. 264

46 *Harvard, supra* note 5; *Pioneer Hi-Bred, supra* note 44

47 *Monsanto, supra* note 13 at 193

48 *Ibid.*

49 *Harvard, supra* note 5 at 475

50 *Tennessee Eastman, supra* note 6; *Imperial Chemical Industries, supra* note 10

51 Re Application 862,758 (now patent 882,618), [1970] C.D. No. 33
Re Application 954,851 (now patent 890,188), [1971] C.D. No. 63

52 *Imperial Chemical Industries, supra* note 10

53 Re Application 527,445 (now patent 1,332,440) [1994] C.D. No. 1191

54 *Organon, supra* note 23; Re Application of *Goldenberg* [1988] 22 C.P.R. (3^d) 159; *Brilliant, supra* note 23; Re Application 406,401 of *Neuromed* [1988] C.D. No. 1125

55 Re: *Mobil Oil* 1,254,297 [1988] 24 C.P.R. (3^d) 571 at 576, “the applicant's system is useful and does not relate solely to calculations or algorithms”

56 *Shell*, *supra* note 7; *Progressive Games, supra* note 18. It has been contended that the Trial Division of the Federal Court decided the *Progressive Games* case on obviousness and lack of novelty, and that its reasoning was confused. However, without commenting on any other points raised or statements made by the Trial Division, the Federal Court of Appeal explicitly agreed with that Court on the fact that the slight variation in the conventional rules of poker did not amount to “a new and innovative method of applying skill or knowledge” within the meaning given those words in Shell. In that case, the Supreme Court stated that “new and innovative methods of applying skill or knowledge” that produced essentially economic results relating to trade, commerce, or industry qualified as “art” under section 2 of the *Patent Act*. Given the subject

matter in *Shell*, methods of using known things for inventive new uses are considered to qualify as new and innovative methods of applying skill or knowledge that produce essentially economic results relating to trade, commerce, or industry. It is also noted that in *Progressive Games*, the new way of playing poker did not involve a new use for a deck of playing cards.

57 *Visx v. Nidek* [1999] 3 C.P.R. (4th) 417 (F.C.T.D.) at 454, aff'd [2001] 16 C.P.R. (4th) 251 (F.C.A.); *Somerville Paper Boxes Ltd. v. Cormier* [1939] 2 C.P.R. 181 (Ex. Ct.) at 200-205, aff'd [1940] 2 C.P.R. 206 (S.C.C.); *Detroit Rubber Products v. Republic Rubber* (1927) Ex. C.R. 29 at 33-35, aff'd (1928) S.C.R. 578; *Canada v. Tessier* [1921] 21 Ex. C.R. 150; *Rolland v. Fournier* [1912] 4 D.L.R. 756 (Qc. K.B.) at 757-758

58 Re Application 40,799 for Game [1971] C.D. No. 79; Re Application 55,210 for Golf Game (now patent 897,199) [1971] C.D. No. 93

59 *Golf Game, ibid.*

60 *Organon, supra* note 23
Harvard College v. Canada (Commissioner of Patents) 7 C.P.R. (4th) 1 at paragraphs 68 to 85, reversed on other grounds 21 C.P.R. (4th) 417

61 *Shell, supra* note 7

62 Re Application 269,230 to *Ebner* (now patent 1121640) [1981] C.D. No. 896

63 Re Application 245,995 to *Hurwitz* [1979] C.D. No. 605; Re Application 44,282 to *Luebs* [1971] C.D. No. 80

64 Re Application 298,822 to *Babcock & Wilcox Company* (Now patent 1,116,380) C.D. No. 821

65 *Mailman v. Gillette Safety Razor Co. of Canada*, (1932) S.C.R. 724 at pp. 731-732

66 Re Application to *Young Dixon* 159,204 [1978] C.D. No. 493

67 *Lawson, supra* note 6 at 116; Commissioner's Decision No. 878, Re Application 253,122 to *Smagala-Romanoff* [1981] C.D. No. 878; Re Application 310,519 to *Blachura* (now patent 1,163,822) [1982] C.D. No. 937

68 *Apotex, supra* note 10 at 501

69 *Visx Inc. v. Nidek Co.* [1999] 3 C.P.R. (4th) 417 at p.452 (para. 134), aff'd [2001] 16 C.P.R. (4th) 251

Chapter 13
Examination of applications

13.01 Scope of the chapter

This chapter presents an overview of the procedures followed during the examination of a patent application. Generally, an application is examined in order depending on the date on which the request for examination is made. Special order status may be given under the circumstances described in Section 13.03.

The examiner searches the prior art, including any art supplied by the applicant under section 29 of the *Patent Rules* to determine that the invention is novel and unobviousness. The application is also examined for conformance with all sections of the *Patent Act* and the *Patent Rules*.

When an examiner determines that an application complies with the *Patent Act* and Rules, a Notice of Allowance is issued to the applicant.

Where the examiner finds that the application does not comply with the *Patent Act* and Rules, an examiner's report is issued requisitioning amendment of the application to comply. Where an impasse between the examiner and the applicant is reached a Final Action is issued by the examiner refusing the application. The prosecution before the examiner is terminated unless the applicant amends to comply with the requisition of the examiner. The Patent Appeal Board and the Commissioner of Patents then determine whether the application is allowed or refused.

An application that is refused by the Commissioner cannot issue to patent unless so dictated by an appeal to the courts.

After a Notice of Allowance is issued on an application, the applicant must pay the final fee within six months of the notice.

An application may be withdrawn from allowance by the Office, before it issues to patent, if the Commissioner has reason to believe that the application does not comply with the *Patent Act* or the Rules.

Upon payment of the final fee, the application is processed through to issue.

13.02 Request for Examination

Applications are not examined automatically (see subsection 35(1) of the *Patent Act*). The applicant (or any other party) must first make a written request for examination, and pay the prescribed fee. Subsections 95 and 96 of the *Patent Rules* sets forth the details required with such a request.

The request for examination shall contain:

a) the name and address of the person making the request;

b) if the person making the request is not the applicant, the name of the applicant; and

c) information, such as the application number, sufficient to identify the application.

A request for examination must be made within five years from the date of filing in Canada (subsection 96(1) of the *Patent Rules*) to avoid abandonment. In the case of a divisional application, the request must be made within five years of the filing of the original application in Canada, or within six months of the filing of the divisional in Canada, whichever occurs later (subsection 96(2) of the *Patent Rules*).

NOTE: For applications filed in the period beginning on October 1, 1989 and ending on the day before October 1, 1996, requests for examination must be made within 7 years from the date of filing in Canada (subsection 150(1) of the *Patent Rules*).

The Commissioner may by notice require an applicant to make a request for examination (subsection 35(2) of the *Patent Act*) within three months of the notice (sections 25, 97, and 151 of the *Patent Rules*). Failure to comply with the Commissioner's notice will result in abandonment of the application pursuant to paragraph 73(1)(e) of the *Patent Act*.

Any person other than the applicant may request examination of an application by submitting a request and paying the required fee (subsection 35(1) of the *Patent Act*). The Patent Office will inform the applicant by letter that a third party has requested examination of the application.

The fee payable on requesting examination of an application is not refundable or transferable.

Failure to request examination within the specified time period will result in abandonment of the application (paragraph 73 (1)(d) of the *Patent Act*). The application may be reinstated upon request and upon payment of the prescribed fee(s) within 12 months from the date of abandonment (section 98 of the *Patent Rules*).

13.03 Requests for advanced examination (Special order)

Applications are generally examined in order according to the date on which the request for examination is made. Under section 28 of the *Patent Rules*, the applicant or any other person may request advanced examination of an application. To obtain advanced examination the requester must make a written request establishing that failure to advance the application is likely to prejudice that person's rights and must pay the prescribed fee (Item 4 of Schedule II of the *Patent Rules*). The request must also be accompanied by, or preceded by a request for examination under subsection 35(1) of the *Patent Act* and by the fee as set out in Item 3 Schedule II of the *Patent Rules*.

An application must be open to public inspection under section 10 of the *Patent Act* in order for a request for advanced examination to be granted (subsection 28(2) of the Parent Rules. The applicant may request early opening of the application (subsection 10(2) of the *Patent Act*) simultaneously with the request for advanced examination. There is no additional fee required for early opening. A third party cannot request early opening of another party's application and must therefore, wait until the application is opened under the provisions of subsection 10(2) of the *Patent Act*.

Where a third party requests advanced examination of an application, the Patent Office will inform the applicant by letter that a third party has requested advanced examination.

Verbal requests for advanced examination are not granted.

The Commissioner does not grant advanced examination status to an incomplete application. Any person requesting advanced examination on such an application is informed, by office letter, that the request will be considered when the application is in proper order.

A divisional application, once it has been completed and an examination request and fee has been received, may be accorded advanced examination status upon request and upon payment of the advanced examination fee.

The advanced examination status remains in effect until disposal of the application or withdrawal by the requester. An application under advanced examination is given immediate action whenever it is in proper condition for examination.

13.04 Prior art citations from foreign prosecution

The applicant may be asked to provide information and copies of any documents related to the prosecution of corresponding applications in other countries including details of;

(a) any prior art cited against those applications,
(b) application numbers, filing dates and patent numbers,
(c) conflict, opposition, re-examination or similar proceedings, and
(d) translations of documents not in English or French.

Generally, at the time that the office acknowledges the receipt of a request for examination on an application, the applicant is asked to consider providing particulars of the prior art cited in the prosecution of corresponding foreign applications when such information becomes available. The above information may also be requisitioned by the examiner according to section 29 of the *Patent Rules* during the prosecution of the application. Failure to respond to an examiner's requisition will result in abandonment of the application (paragraph 73(1)(a) of the *Patent Act*).

All prior art information and other information provided under section 29 of the *Patent*

Rules will be taken into account by the examiner at the time of examination.

13.05 Examination

A careful examination of each patent application is made by competent examiners employed in the Patent Office in accordance with subsection 35(1) of the *Patent Act*. A patent, granting an exclusive property in the invention, is only obtained providing the applicant complies with all requirements of the *Patent Act* . It is the role of the examiner to ensure that all the relevant sections of the *Patent Act* and the *Patent Rules* are met before issue of the patent.

After careful study of the specification by the examiner to ascertain the scope of the invention described and claimed in the application, the examiner performs a thorough search of the prior art related to the technical area of the invention. The examiner also examines the abstract, description, drawings, photographs, sequence listings, and claims for conformance to the relevant sections of the *Patent Act* and *Patent Rules*.

13.05.01 Search of the prior art

A search of the prior art of the technical area of the invention is carried out to establish that the invention claimed in the patent application is novel (section 2, and subsection 28.2 (1) of the *Patent Act*) and is not obvious to a person skilled in the art or science to which it pertains (section 28.3 of the *Patent Act*).

A classification examiner determines the main International Patent Classification (IPC) class, subclass, group and subgroup for the subject matter of the claims of the application as well as cross reference classifications and the Canadian Patent Classification (CPC) class and subclass. These classifications are used by the examiner to conduct a search of the prior art patents.

For the search, the examiner has access to patent documents from the following countries; Australia, Austria, Belgium, Bulgaria, Czechoslovakia, Canada, France, Germany, Great Britain, Hungary, Japan, Netherlands, Norway, Poland, Spain, Sweden, Switzerland, Romania and the United States as well as patent documents from the European Patent Office and Patent Cooperation Treaty publications. The

examiner also has access to on-line search services such as INPADOC, ORBIT and STN for keyword searching. Printed publications can also be obtained through the Departmental Library.

Prior art citations provided by the applicant regarding prosecution of corresponding foreign applications are also scrutinized by the examiner.

Prior art references which have a bearing on the novelty or obviousness of the invention claimed in the application are cited against the application in an examiner's report. Details of art citation for lack of novelty and obviousness are presented in Chapter 15 of this manual. The examiner requisitions the applicant to amend the application to overcome the art citations.

13.05.02 Defects in the application

In addition to the search of the prior art, the examiner inspects various parts of the patent application for compliance with the applicable sections of the *Patent Act* and the Rules. In particular, the abstract, description, claims, drawings, photographs, and sequence listings are each reviewed.

The purpose of the abstract is to provide a brief description of and utility for the invention disclosed in the patent specification so as to enable the reader to determine quickly if the entire patent specification would be of interest to him. A full discussion of the requirements of the *Patent Act* and Rules regarding abstracts is presented in Chapter 8 of this manual.

The description must correctly and fully describe the invention and its operation or use as contemplated by the inventor. It must clearly set out the invention in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it pertains, or with which it is most closely connected to put the invention into practice. The invention should be described in such a manner as to distinguish it from other inventions. The office practice and the relevant sections of the *Patent Act* and *Patent Rules* which apply to the description are given in Chapter 9 of this manual.

Drawings or photographs are necessary in an application for a machine or an invention which admits of illustration by means of drawings or photographs. The drawings must

clearly show all the parts of the invention and must include references corresponding with the description. Chapter 10 of this manual deals with the requirements of the *Patent Act* and Rules for drawings and photographs.

The specification must end with a claim or claims defining distinctly and in explicit terms the subject-matter of the invention for which an exclusive privilege or property is claimed. The criteria that must be met for acceptable claims in a patent application are discussed in detail in Chapter 11 of this manual.

Any defects found in the application are reported to the applicant in an examiner's report. An application which is found to fully comply with all of the relevant sections of the *Patent Act* and the *Patent Rules* is allowed by the examiner and a Notice of Allowance is issued to the applicant.

13.06 Examiner's Report

Where an examiner finds that an application does not comply with the *Patent Act* or the Rules, an examiner's report is issued to the applicant, in accordance with subsection 30(2) of the *Patent Rules*, objecting to the defects found.

In the report the examiner also requisitions the applicant to amend the application in order to comply with those sections of the *Patent Act* or Rules identified in the report, or to provide arguments as to why the application does comply.

The time limit for responding to an examiner's requisition is the six-month period after the requisition is made or within any shorter period established by the Commissioner, in accordance with paragraph 73(1)(a) of the *Patent Act* .

The examiner's report generally includes the following;

a statement of the authority for issuing the report (section 30(2) of the *Patent Rules*),

the time limit for response to the examiner's requisition (paragraph 73(1)(a) of the *Patent Act*),

a statement of the status of the application at the time of examination (as filed, as amended on specified date, subject to the Commissioner's Decision, correspondence received and reviewed),

an indication of the number of claims on file,

the results of the prior art search, or limitations made to the prior art search and reasons for the limitations,

objections to the defects found in the application, including a reference to the applicable sections of the *Patent Act* or Rules with which the application fails to comply, and

a requisition for amendment of the application to comply with the cited sections of the *Patent Act* and Rules.

Failure to respond to an examiner's requisition within the time limit specified in the report will result in abandonment of the application as per paragraph 73(1)(a) of the *Patent Act*. An abandoned application can be reinstated upon applying for reinstatement, paying the reinstatement fee, and taking the action which was necessary to avoid the abandonment originally (in this case respond to the examiner's requisition).

13.06.01 Withdrawal of Examiner’s Report

If an outstanding examiner’s report is no longer applicable in view of correspondence which renders the action inapplicable or unnecessary the examiner directs the examination assistant to cancel the report and notify the applicant of the cancellation by Office letter, and, as a courtesy, also by telephone, if practical. The application file will indicate that the report has been withdrawn and the time limit that was set for response does not apply.

13.07 Amendment of the application

Amendments to applications are permitted under section 38.2 of the *Patent Act*. Applicants may amend their applications either on their own initiative or in response to

an examiner's requisition. The amendment must comprise new pages for any changes to the application made by the amendment, and a supporting explanation. Under section 34 of the *Patent Rules* every amendment must be accompanied by a written statement explaining the nature of the amendment and its purpose. If the amendment is in response to an examiner's requisition, the written statement must explain the manner in which the amendment overcomes each of the objections made by the examiner.

Section 38.2 of the *Patent Act* restricts the contents of amendments. The restriction is that no new subject matter may be introduced. Only matter reasonably to be inferred from the specification and drawings as originally filed may be added to either the specification or drawings.

All applications that have been amended are subject to further examination. Any defects introduced by an amendment, will be addressed in a subsequent examiner's report. Amended applications, except those amended after allowance, are also subject to a further search of the prior art.

A detailed discussion of the restrictions and office procedures regarding amendments to patent applications is given in Chapter 19 of this manual.

13.08 Final Action

Occasionally, during the prosecution of an application, an impasse is reached between the examiner and the applicant on a particular defect of the application. Where the applicant does not comply with a requisition of the examiner to amend the application, and the examiner still believes that the application is defective for not conforming to the applicable section of the *Patent Act* or Rules, the examiner may reject the application in a Final Action (subsection 30(3) and (4) of the *Patent Rules*). The Final Action terminates the prosecution of the application before the examiner unless the applicant submits an amendment that satisfies the requisition of the examiner (subsection 30(5) of the *Patent Rules*).

Chapter 21 of this manual provides a detailed discussion of the office procedures for Final Action.

13.09 Refusal to grant a patent

Whenever the Commissioner is satisfied that the applicant is not by law entitled to be granted a patent, the Commissioner refuses the application in accordance with section 40 of the *Patent Act*.

The refusal is generally preceded by a Final Action issued by the examiner responsible for the substantive examination of the application. The reason for the Commissioner's refusal must be based on non-compliance with one or more sections of the *Patent Act* or the *Patent Rules*.

The Commissioner must notify the applicant by registered letter of the refusal and the ground or reason therefor. The notification generally bears the notation "Decision of the Commissioner of Patents" and provides a justification for the refusal based on the *Patent Act*, *Patent Rules* and pertinent jurisprudence.

An applicant whose application for patent has been refused by the Commissioner pursuant to section 40 of the *Patent Act* may appeal the decision of the Commissioner to the Federal Court. The time limit for taking the appeal is the six-month period after the notice of the Commissioner's Decision is mailed.

13.10 Allowance and Notice of Allowance

Where the examiner, after substantive examination of the application, finds that it is in compliance with all requirements of the *Patent Act* and the *Patent Rules*, the examiner issues a Notice of Allowance in accordance with subsection 30(1) of the *Patent Rules*.

The Notice of Allowance advises that the patent application has been found allowable by the examiner and may issue to Letters Patent upon payment of the final fee. The notice also requisitions the payment of the final fee (item 6 of Schedule II of the *Patent Rules*) within six months of the date the notice was mailed (paragraph 73(1)(f) of the *Patent Act*).

Where the final fee is not paid within six months from the date of the notice, the application for patent is abandoned in accordance with paragraph 73(1)(f) of the *Patent*

Act. An abandoned application may be reinstated upon applying for reinstatement, paying the reinstatement fee and taking the action which was necessary to avoid the abandonment (in this case paying the final fee). A reinstated application is subject to amendment and further examination and search of the prior art before a new Notice of Allowance is issued.

After a Notice of Allowance has been issued, the applicant has no right to amend the application, but the Commissioner may at his discretion permit the entry of an amendment presented before payment of the final fee, if the entry does not necessitate a further search by the examiner in respect of the application.

13.11 Withdrawal from allowance

If, after an application is found by the examiner to be allowable and the applicant has received a Notice of Allowance, the Commissioner subsequently finds that the application is not allowable, the Commissioner, either before or after payment of the final fee, notifies the applicant that the Notice of Allowance is withdrawn (subsection 30(7) of the *Patent Rules*).

If the final fee has been paid at the time that the Commissioner withdraws the Notice of Allowance, the fee is refunded to the applicant (subsections 4(10) and 30(7) of the *Patent Rules*).

A withdrawal from allowance may be precipitated by the filing of a protest or prior art under section 34.1 of the *Patent Act*.

An application which has been withdrawn from allowance is returned to the examiner for further examination. The normal restrictions regarding amendments after allowance (section 32 of the *Patent Rules*) and amendments after payment of the final fee (section 33 of the *Patent Rules*) do not apply to applications where the Notice of Allowance has been withdrawn by the Commissioner (subsection 30(8) of the *Patent Rules*). When the application is found by the examiner to be in compliance with all requirements of the *Patent Act* and Rules, a new Notice of Allowance is issued to the applicant.

13.12 Issue of the patent

Upon payment of the final fee, the application is generally automatically processed through to issue. No amendments may be entered in the application, except in the circumstance where the Notice of Allowance is withdrawn by the Commissioner.

The application will issue in the name of the inventor or the legal representative as their interest appear from assignments previously recorded. Assignments which are received in the Patent Office no later than the day on which the final fee is paid, may be relied upon to provide the appropriate names in which the patent will issue (section 41 of the *Patent Rules*).

The patent generally will issue on a Tuesday, approximately nine weeks after the office receives the payment of the final fee. The payment of the final fee may be withdrawn if a request for its return is made by the applicant before the start of technical preparations for issue of the patent.

A list of the patents issued by the Patent Office each week is published in the Patent Office Record. Information listed in the CPOR for each patent includes the number, the title in French and English, inventor name(s), patentee, number of claims and the classification of the patent. Patents issued on applications filed before October 1, 1989 bear a unique patent number less than two million. Applications filed on or after October 1, 1989 issue to patent with the same number as the application (greater than 2,000,000).

Chapter 14
Unity of invention

14.01 Unity of invention

Section 36 of the *Patent Act* states that a patent shall be granted for one invention only. The Commissioner shall not consider a patent application to claim more than one invention if the subject matters defined by the claims are so linked as to form a single general inventive concept (section 36 of the *Patent Rules*). Thus, there must be unity of invention within the claims of a patent application. Restriction is required whenever different subject matters unconnected in design or operation are claimed in one application. Further, where a group of inventions is claimed in the same application, the requirement of unity of invention referred to in section 36 of the *Patent Rules* is considered to be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" refers to those technical features that define the contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

14.02 Unity of invention; Division of applications

The requirement of unity of invention shall be considered to be complied with where the following combinations of claims of different categories are included in the same application:

(a) a product and a process for making the product;

(b) a product and a use of the product;

(c) a product, a process for making the product and a use of the product;

(d) a process and an apparatus specially adapted to carry out the process;

(e) a product, a process for making the product and an apparatus specially adapted

to carry out the process; or

(f) a product, a process for making the product, an apparatus specially adapted to carry out the process and a use of the product.

14.02.01 Order of claims

The order in which the claims appear in any of combinations (a) to (f) above may be different from the order set forth therein. What is decisive is that the combinations are the same.

14.02.02 Examples

(A) Product and process

Claims to a product and claims to a process for making that product are allowable in the same application. Generally, there is no need for the process claims and the product claims to be of the same scope. Consequently, the process claims may be directed to a method of preparing a family of compounds while the product claims may be restricted to only one member, or a small number of members, of that family. Conversely, the product claims may be directed to a family of compounds and the process claims may prepare only a few members of the family.

The process and the product must be so related that the process produces the product. If, however, there is a generic product claim and a generic process claim which are merely linked together through a common species, Section 36 is applied.

The following example illustrates Section 36 practice:

Claim 1 - A process to prepare sulphate compounds.
Claim 2 - A process to prepare sulphate of A.
Claim 3 - A process to prepare sulphate of B.
Claim 4 - A process to prepare sulphate of C.
Claim 5 - Sulphate of C.
Claim 6 - Salts of C.
Claim 7 - Nitrate of C.

Claim 8 - Chloride of C.

In this example the Patent Office would not permit claims 1 and 6 in one application, even though they are linked with respect to sulphate C. There is no unity of invention between, the claim to the process to sulphate A and the claim to the nitrate of C. Furthermore, there is no unity between claims 7 and 8 and any of the process claims defined in claims 1 to 4.

(B) Product and a use of the product

Claims to the use of a product may be included in the same application with claims to the product itself. The use must be fully described in the disclosure and must be based on the utility upon which the patentability of the product is predicated. The use may be embodied in different types of claims. A use could be claimed in the form of,

a) a composition in which the product is an ingredient (e.g. A herbicidal composition comprising the product X and an inert carrier),

b) a method of use claim (e.g. The method of killing weeds comprising applying product X to the weeds),

c) a use "per se" (e.g. The use of product X to kill weeds).

Claims in these formats may be claimed in the same application as claims to the product. There is no need for the product claim and the use claim to be of the same scope.

(C) Product, process and use

Under the provisions of paragraph 14.02 (c) above, an application may include claims to a product, claims to a process for preparing that product and claims to a use of the product.

(D) Process and apparatus

An application may contain claims to a process along with a claim to an apparatus or

means specially adapted to carry out the process. The apparatus claims may be more extensive in scope than the process claims, or the process claims may be more extensive in scope than the apparatus claims, e.g. the process could be carried out in an apparatus different from the apparatus claimed. However the two sets of claims must be directed to the same inventive concept.

In the following example, the execution of functions A to D inclusive is the inventive concept and is claimed in both apparatus and process forms. The additional means and apparatus of claim 1 would normally constitute the known immediate and cooperating environment of the invention.

Claim 1

An apparatus to manufacture lamps automatically, including lamp envelope selecting and positioning means, means for conveying lamp components to an assembling means, wherein said assembling means comprises means for executing function A, means for executing function B, means for executing function C and means for executing function D; and means for conveying assembled lamps from said assembling means.

Claim 2

A process of assembling lamps comprising the steps of executing function A, executing function B, executing function C and executing function D.

(E) Product, process and apparatus

An applicant is permitted to include independent claims to a product, independent claims to a process for preparing that product and independent claims to an apparatus specially adapted to carry out the process in an application (Refer to 14.02 (e) above).

(F) Product, process, apparatus and use

An applicant is permitted to include independent claims to a product, independent claims to a process for preparing that product and independent claims to an apparatus specially adapted to carry out the process and independent claims to the use of the

product (Refer to 14.02 (f) above).

14.03 Acceptable claim groupings

Applications may contain certain groups of subject matter including combinations and subcombinations, intermediates and final products and Markush claims. Each of these groups may contain claims or elements of claims which could be claimed in separate applications but because they incorporate a single general inventive concept they may be permitted in a single application. The following examples illustrate acceptable claim groupings.

14.03.01 Combination and subcombination claims

To be allowable in one application, a claim to a combination and one to a subcombination must be directed to the same inventive concept. It must be seen that the subcombination is truly the same invention as the combination.

Where the function or utility of the subcombination is essentially that of the combination, claims to the two may be allowed together. A viscosity-reducing oil additive and oil containing the additive would normally be allowed in one application. The purpose of the inventive additive is to improve the properties of the substance with which it is mixed.

On the other hand an anticorrosion agent per se and a composition containing the agent cannot be claimed in the same application if in the claimed composition, the agent has lost its original anticorrosion effect and, instead, acts as an insecticide.

A second invention may also be present when a subcombination is claimed together with one or more combinations containing it, and it is clear that the purpose, use or function of a combination differs from that of the subcombination. For example, in a process having a principal step A of heating composition X to produce composition Y, a claim to step A may not be allowable with a claim to step A followed by step B. For example, these two claims could not be allowed in the same application if step B comprised an ingenious transformation of Y to produce a newly invented composition Z that differed in function from its intermediate Y.

14.03.02 Markush claims

A Markush claim is a claim which covers selected members of a genus as contrasted to all the members of the genus, so as to exclude inoperative members of the group.

Markush groupings will be considered to be directed to one invention when all of the members of the group have a common basic structure and/or a common property or activity is present. In those cases where a common property or activity is present, all of the members are expected to behave in the same way in the context of the claimed invention.

14.03.03 Intermediates and final products

A final product and an intermediate product used in the preparation of the final product may be claimed independently in the same application only when there is sufficient structural similarity between the two such that it can reasonably be assumed that the intermediate was designed to prepare the final product. The intermediate may also have the same use as the final product, but it must not have any other use. Any other use of this intermediate may be considered a further invention. Furthermore, the final product should be manufactured directly from the intermediate or from the intermediate via a small number of other intermediates having similar structure.

14.04 Unacceptable claim grouping

There may be a variety of claims drafted which share one or more common features but which do not ensure that there is a single general inventive concept defined by each of the claims. The examples characterized in 14.04.01 show such unacceptable claims.

14.04.01 Linking claims

Applications may not contain separate claims linked together by the subject matter of a third claim.

For example:

(a) Claim 1 to the substance A.
Claim 2 to the substance B.
Claim 3 to the combination of A and B.

(b) Claim 1 to the combination of A, B and C.
Claim 2 to the combination of E, F and G.
Claim 3 to the combination of C, D and E.

In Example (a) Claims 1 and 2 are directed to different substances and in Example (b) Claims 1 and 2 are directed to different combinations.

The presence of linking Claims 3 in both examples does not justify the inclusion of unrelated subcombinations in one application and restriction is required under Section 36(1) of the *Patent Act* and Section 36 of the *Patent Rules*.

It should be noted that in the first example Claim 3 could be maintained in an application with either Claim 1 or Claim 2, but not both.

In example (b) none of claims 1, 2, or 3 could be allowed in the same application with any other of claims 1, 2, or 3 because they each define a distinct combination. Claims 1 and 3 could be allowed together if the application contained an allowable claim to subcombination C. Claims 2 and 3 could be allowed together if the application contained an allowable claim to subcombination E.

14.05 Divisional applications

When unity of invention does not exist, the applicant may voluntarily limit the claims to one invention only, and any other invention described may be made the subject of a divisional application (section 36(2) of the *Patent Act*). Such a divisional application must be filed before the issue of a patent on the original application.

Further, where an original application describes and claims more than one invention, the applicant must, on the direction of the Commissioner, limit the claims to one invention only and any other invention described may be made the subject of a divisional application, if the divisional application is filed before the issue of a patent on

the original application (section 36(2.1) of the *Patent Act*).

Under section 36 of the *Patent Act*, it is not required that an applicant claim the various inventions that may be described in the specification in order to file a divisional application; it is only required that the applicant describe the various inventions.

Divisional applications will retain the filing date of the original applications. Further, any priorities requested respecting the original applications will be automatically carried forward to divisional applications subsequently filed. If the applicant wishes to withdraw one or more priority requests he/she may so indicate in the petition of the divisional application.

It should be noted that when filing divisionals under subsection 36(2), of the *Patent Act*, the applicant may contravene subsection 36(2.1) of the *Patent Act* by inserting claims to more than one invention in a divisional application. This case could arise when an applicant describes three or more inventions in an original application.

When the examiner is reasonably certain that more than one invention is being claimed, the claims are grouped by invention and the applicant is requisitioned to limit the claims to one invention (subsection 36(2.1) of the *Patent Act*).

When two or more groups of claims are present in an application, only one of the groups of claims is examined. A requisition for restriction of the claims to one invention will usually be made in the examiner's first report along with any other objections to the group of claims under examination.

It is also possible that, during the examination process, the claims of an application may be amended in such a manner that two or more inventions are being claimed. The examiner will make a requisition for restriction to one invention at that time.

14.05.01 Time limits for divisional applications

Examination of divisional applications filed on the basis of an original application that was filed on or after October 1, 1996 must be requested before the expiry of the later of the five year period after the filing date of the original application and the six month period after the date on which the divisional application is actually filed (subsection

96(2) of the *Patent Rules*).

For divisional applications filed on the basis of an application that was filed between October 1, 1989 and October 1, 1996, the examination request must be made before the expiry of the later of the seven year period after the filing date of the original application and the six month period after the date on which the divisional application is actually filed (subsection 150(2) of the *Patent Rules*). Under subsections 36(2) and 36(2.1) of the *Patent Act*, a divisional must be filed "before the issue of a patent on the original application". Sections 2 and 6 of the Interpretations Act establish that a patent is granted and issued at the end of the day preceding the date of issue, since instruments issued on a particular day come into force upon the expiration of the previous day. Consequently a divisional application may not be filed on the day of issue of the patent on the original application.

The time for filing a divisional of an abandoned application terminates with the expiration of the time for reinstating the original application.

14.06 Examination for divisional status

An application for which the applicant has requested divisional status will be accorded the filing date of the parent application. The applicant may be required to withdraw his request for divisional status if it is subsequently determined that the application contains new matter not described in the parent application.

Any application that satisfies the requirements of subsections 36(2) and 36(2.1) of the *Patent Act* may be given the status of a divisional application at any time during its prosecution.

For divisional applications with an examination request, the question of divisional status will be settled as soon as possible after receipt of the request for examination and before any action on the merits of the application is issued. If divisional status is refused, the applicant will be informed.

14.06.01 Divisional applications open to inspection

A divisional application will be open to public inspection in accordance with Section 10 of the *Patent Act* if the parent application is already open to inspection. If the parent application is not open to public inspection, the divisional application and parent application will be opened to public inspection at the same time.

Any application filed as a divisional will be opened to public inspection 18 months from the filing date of the original application or the date of the earliest previously filed application on the basis of which a request for priority has been made (subsections 10(2) and 36(4) of the *Patent Act*). Should the application be refused divisional status because it contains new subject matter, the new subject matter may also be opened to public inspection and may constitute a bar to the issuance of a patent to the applicant for that subject matter.

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Divisional applications based on original applications filed prior to October 1, 1989 will not be opened to public inspection.

14.06.02 No new matter in specification

A determination of the presence of new matter in the specification and drawings of a divisional application as outlined in the following paragraphs will be made only after a request for examination of the divisional is received.

The specification and drawings of a divisional application must be restricted to what has been described in the specification and drawings of the parent application. If new matter which was not part of the parent application as originally filed is included in the specification or drawings of a divisional application when it is filed, the applicant is advised by examiner's report that the new application is not entitled to divisional status.

Where both the petition and specification refer to divisional status, the examiner's report requisitions that the new matter be removed within a specified time or all references to divisional status be deleted. In those cases where only the petition refers to divisional status, the examiner's report requisitions the applicant to delete the new matter or to delete reference to divisional status from the petition within a specified time. Failure to comply with the examiner's report may result in the rejection of the application in a final

action. If the applicant retains new matter in the specification and drawings but removes all reference to divisional status, the application will be given the date it was received in the Patent Office as its filing date.

If during the prosecution of a divisional application an applicant amends to add new matter, an examiner's action is issued requisitioning deletion of the new matter. Any further examiner's action on the same ground may be made final.

14.06.03 Further divisional

A divisional application may itself be divided. The further divisionals may be filed after the original parent application has issued, as long as they are filed before the issue of their particular parent application. For example, an application describing three inventions A,B and C may be divided as follows: divisional 1 describing and claiming inventions B and C and divisional 2 describing and claiming invention C. If the original application has issued, divisional 1 must describe inventions B and C in order for divisional 2 to have a proper parent.

The effective filing date of each divisional application is the filing date of the original application.

If a divisional application is derived from a parent application which is itself a division of an earlier application, the front cover of the last divisional must clearly indicate the relationship between the various applications in the following form: Div. of 735xxx filed Sept.9, 1987 (Division of 619xxx filed Aug. 6, 1984).

14.06.04 The petition of a divisional

The petition of a divisional application must refer to its divisional status (section 77 of the *Patent Rules* and Item 2 of Form 3, Schedule I of the *Patent Rules*). If such a reference is missing from the petition at the time of filing, an Office letter is sent under paragraph 94(1)(a) of the *Patent Rules* requisitioning a new petition before the expiration of the time period specified in subsection 94(2) of the *Patent Rules*. If the applicant fails to comply, a Commissioner's notice is sent requisitioning the applicant to provide a petition in conformance with Form 3 of Schedule 1 of the *Patent Rules*. The notice will carry the time limit specified in subsection (94)(1) of the *Patent Rules* and

require payment of the fee specified in Item 2 of Schedule II of the *Patent Rules*.

If an application at filing is not entitled to divisional status, for example, if the examiner refuses divisional status upon receipt of the request for examination there should be no reference to division either in the petition or in the specification. It should be noted that an application not entitled to divisional status will be given as its filing date the actual day that it was received in the Patent Office. The applicant would be entitled to request priority based on any earlier regularly filed application which had been filed within the preceding 12 months.

In the above situations, an examiner's report is sent detailing the reasons for not recording the divisional status and giving the applicant the option of rectifying the cause for not recording divisional status or amending the application to remove any reference to divisional status from the petition and the specification (if present). The amendment must take the form of a replacement petition and any page of the specification affected.

If the applicant argues that divisional status should be retained
the application may be rejected in a final action.

14.07 Divisional applications and fees

Divisional applications are considered to be separate and distinct applications. Therefore, any fee which is applicable to an ordinary application will be applicable to a divisional application. Since a properly filed divisional application will bear the filing date of the parent application, a divisional application is, at the time of filing, subject to fees to maintain the application in effect. Such fees will be calculated from the filing date of the parent application and are payable upon the filing of the divisional application (subsection 99(3) of the *Patent Rules*). Moreover, such a divisional application will be subject to the prescribed fee upon a request for examination pursuant to subsection 35(1) of the *Patent Act*. Finally, any patent resulting from the a divisional application is subject to the appropriate fees to maintain the patent. (section 46 of the *Patent Act* and subsection 100(1) of the *Patent Rules*.

14.08 Jurisprudence

The following decisions of the courts are of importance in considering the subject matter of this chapter:

Short Milling v George Weston	ExCR	69	1941
Rohm & Haas v Comm of Patents	30 CPR	113	1959
Lovell v Beatty	41 CPR	18	1962
Boehringer v Bell-Craig	39 CPR	201	1962
Comm of Pat v Farbwerke	41 CPR	9	1963
	SCR	49	1964
Xerox v IBM	33 CPR (2d)	24	1977
Consolboard v MacMillan	56 CPR (2d)	145	1981
	1 SCR	504	1981
Radio Corp v Hazeltine	56 CPR (3d)	170	1981
Re: Hedstrom	31 CPR (3d)	324	1989

Chapter 14

Appendix of

Examples relating to unity of invention

I. Claims in different categories

Example 1

Claim 1: A method of manufacturing chemical substance X.

Claim 2: Substance X.

Claim 3: The use of substance X as an insecticide.

Unity exists between claims 1, 2 and 3. The special technical feature common to all the claims is substance X.

Example 2

Claim 1: A process of manufacture comprising steps A and B.

Claim 2: Apparatus specifically designed for carrying out step A.

Claim 3: Apparatus specifically designed for carrying out Step B.

Unity exists between claims 1 and 2 or between claims 1 and 3. There is no unity between claims 2 and 3 since there exists no common special technical feature between the two claims.

Example 3

Claim 1: A process for painting an article in which the paint contains a new rust inhibiting substance X including the steps of atomizing the paint using compressed air, electrostatically charging the atomized paint using a novel electrode arrangement A and directing the paint to the article.

Claim 2: A paint containing substance X.

Claim 3: An apparatus including electrode arrangement A.

Unity exists between claims 1 and 2 where the common special technical feature is the paint containing substance X or between claims 1 and 3 where the common special technical feature is the electrode arrangement A.

However, unity is lacking between claims 2 and 3 since there exists no common special technical feature between them.

Example 4

Claim 1: Use of a family of compounds X as insecticides.

Claim 2: Compound X_1 belonging to family X.

Provided X_1 has the insecticidal activity and the special technical feature in claim 1 is the insecticidal use, unity is present.

Example 5

Claim 1: A process for treating textiles comprising spraying the material with a particular coating composition under special conditions (e.g. as to temperature, irradiation).

Claim 2: A textile material coated according to the process of claim 1.

Claim 3: A spraying machine for use in the process of claim 1 and characterized by a new nozzle arrangement providing a better distribution of the composition being sprayed.

The process according to claim 1 imparts unexpected properties to the product of claim 2.

The special technical feature in claim 1 is the use of special process conditions corresponding to what is made necessary by the choice of the particular coating. Unity exists between claims 1 and 2.

The spraying machine in claim 3 does not correspond to the above identified

special technical feature. Unity does not exist between claim 3 and claims 1 and 2.

Example 6

Claim 1: A fuel burner with tangential fuel inlets into a mixing chamber.

Claim 2: A process for making a fuel burner including the step of forming tangential fuel inlets into a mixing chamber.

Claim 3: A process for making a fuel burner including casting step A.

Claim 4: An apparatus for carrying out a process for making a fuel burner including feature X resulting in the formation of tangential fuel inlets.

Claim 5: An apparatus for carrying out a process for making a fuel burner including a protective housing B.

Claim 6: A process of manufacturing carbon black including the step of tangentially introducing fuel into a mixing chamber of a fuel burner.

Unity exists between claims 1, 2, 4 and 6. The special technical feature common to all the claims is the tangential fuel inlets. Claims 3 and 5 lack unity with claims 1, 2, 4 and 6 since claims 3 and 5 do not include the same or corresponding special technical feature as set forth in claims 1, 2, 4 and 6. Claims 3 and 5 would also lack unity with one another.

Example 7

Claim 1: A high corrosion resistant and high strength ferritic stainless steel strip consisting essentially of, in percent by weight: Ni=2.0-5.0; Cr=15-19; Mo=1-2; and the balance Fe having thickness of between 0.5 and 2.0 mm and a 0.2% yield strength in excess of 50 kg/mm squared.

Claim 2: A method of producing a high corrosion resistant and high strength ferritic stainless steel strip consisting essentially of, in percent by weight: Ni=2.0-5.0; Cr=15-19; Mo=1-2; and the balance Fe comprising the steps of:

hot rolling to a thickness between 2.0 and 5.0 mm;

annealing the hot rolled strip at 800-1000 degrees C under substantially non-oxidizing conditions;

cold rolling the strip to a thickness of between 0.5 to 2.0 mm; and final annealing the cold rolled strip at between 1120 and 1200 degrees C for a period of 2-5 minutes.

Unity exists between product claim 1 and process claim 2. The special technical feature in the product claim is the 0.2% yield strength in excess of 50 kg/mm squared. The process steps in claim 2 inherently produce a ferritic stainless steel strip with a 0.2% yield strength in excess of 50 kg/mm squared. Even if this is not apparent from the wording of claim 2, it is clear from the description. These process steps are the special technical feature which correspond to the limitation in the product claim directed to the same ferritic stainless steel with the claimed strength characteristics.

II. Claims in the same category

Example 8

Claim 1: Plug characterized by feature A.

Claim 2: Socket characterized by corresponding feature A.

Feature A is a special technical feature which is included in both claims 1 and 2 and therefore unity is present.

Example 9

Claim 1: Transmitter provided with time axis expander for video signals.

Claim 2: Receiver provided with time axis compressor for video signals received.

Claim 3: Transmission equipment for video signals comprising a transmitter provided with time axis expander for video signals and a receiver provided with time axis compressor for video signals received.

The special technical features are in claim 1 the time axis expander, and in claim 2 the time axis compressor, which are corresponding technical features. Unity exists between claims 1 and 2. Claim 3 includes both special technical features and has unity with claims 1 and 2. The requirement for unity would still be met in the absence of the combination claim (claim 3).

Example 10

Claim 1: Conveyor belt with feature A.

Claim 2: Conveyor belt with feature B.

Claim 3: Conveyor belt with features A + B.

Feature A is a special technical and feature B is another unrelated special technical feature. Unity exists between claims 1 and 3 or between claims 2 and 3, but not between claims 1 and 2.

Example 11

Claim 1: Control circuit A for a d.c. motor.

Claim 2: Control circuit B for a d.c. motor.

Claim 3: An apparatus including a d.c. motor with control circuit A.

Claim 4: An apparatus including a d.c. motor with control circuit B.

Control circuit A is a special technical feature and control circuit B is another unrelated special technical feature. Unity exists between claims 1 and 3 or between claims 2 and 4, but not between claims 1 and 2 or 3 and 4.

Example 12

Claim 1: A display with features A + B.

Claim 2: A display according to claim 1 with additional feature C.

Claim 3: A display with features A + B with additional feature D.

Unity exists between claims 1, 2 and 3. The special technical feature common to all the claims is features A + B.

Example 13

Claim 1: Filament A for a lamp.

Claim 2: Lamp B having filament A.

Claim 3: Searchlight provided with lamp B having filament A and a swivel arrangement C.

Unity exists between claims 1, 2 and 3. The special technical feature common to all the claims is the filament A.

Example 14

Claim 1: A marking device for marking animals, comprising a disc-shaped element with a stem extending normally therefrom, the tip of which is designed to be driven through the skin of the animal to be marked, and a securing disk element to be fastened to the protruding tip of the stem on the other side of skin.

Claim 2: An apparatus for applying the marking device of claim 1, constructed as a pneumatically actuated gun for driving the stem of the disc-shaped element through the skin, and provided with a supporting surface adapted for taking up a securing disc element, to be placed at the other side of the body portion in question of the animal to be marked.

The special technical feature in claim 1 is the marking device having a disc-shaped element with a stem and a securing disc element to be fastened to the tip of the stem. The corresponding special technical feature in claim 2 is the pneumatically actuated gun for driving the marking device and having a supporting surface for the securing disc element. Unity exists between claims 1 and 2.

Example 15

Claim 1: Compound A.

Claim 2: An insecticide composition comprising compound A and a carrier.

Unity exists between claims 1 and 2. The special technical feature common to all the claims is compound A.

Example 16

Claim 1: An insecticide composition comprising compound A (consisting of a_1, a_2 ...) and a carrier.

Claim 2: Compound a_1.

All compounds A are not claimed in the product claim 2 for reasons of lack of novelty of some of them for instance. There is nevertheless still unity between the subject matter of claims 1 and 2 provided a_1 has the insecticidal activity which is also the special technical feature for compound A in claim 1.

Example 17

Claim 1: Protein X.

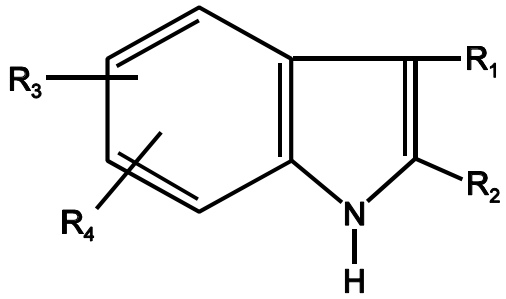
Claim 2: DNA sequence encoding protein X.

Expression of the DNA sequence in a host results in the production of a protein which is determined by the DNA sequence. The protein and the DNA sequence exhibit corresponding special technical features. Unity between claims 1 and 2 is accepted.

III. Markush practice

Example 18 - common structure:

Claim 1: A Compound of the formula:

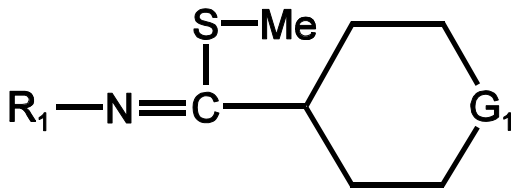


Wherein R_1 is selected from the group consisting of phenyl, pyridyl, thiazolyl, triazinyl, alkylthio, alkoxy and methyl; R_2 - R_4 are methyl, benzyl or phenyl. The compounds are useful as pharmaceuticals for the purpose of enhancing the capacity of the blood to absorb oxygen.

In this case the indolyl moiety is the significant structural element which is shared by all of the alternatives. Since all the claimed compounds are alleged to possess the same utility, unity is present.

Example 19 - common structure:

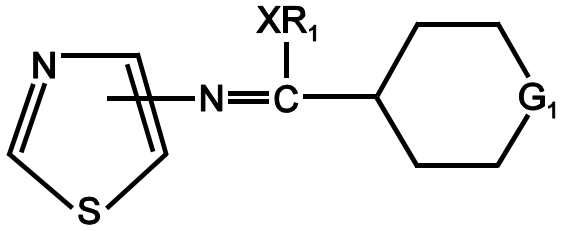
Claim 1: A compound of the formula:



Wherein R_1 is selected from the group consisting of phenyl, pyridyl, thiazolyl, triazinyl, alkylthio, alkoxy and methyl; G_1 is selected from the group consisting of oxygen (O), sulfur (S), imino (NH) and methylene (-CH_2-). The compounds are alleged to be useful as pharmaceuticals for relieving lower back pain. In this particular case the iminothioether group -N=C-Me linked to a six atom ring is the significant structural element which is shared by all the alternatives. Thus, since all the claimed compounds are alleged to possess the same use, unity would be present. A six membered heterocyclic ring would not have been of sufficient similarity to allow a Markush grouping exhibiting unity, absent some teaching of equivalence in the prior art.

Example 20 - common structure:

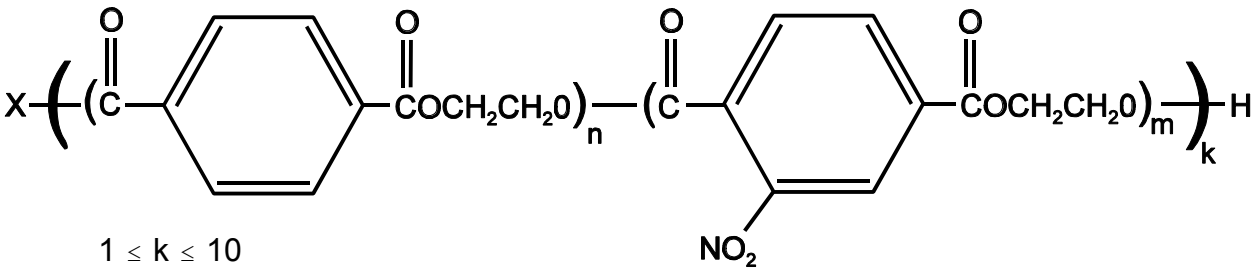
Claim 1: A compound of the formula:



Wherein R_1 is methyl or phenyl, X and G_1 are selected from oxygen (O) and sulfur (S). The compounds are useful as pharmaceuticals and contain the 1,3-thiazolyl substituent which provides greater penetrability of mammalian tissue which fact makes the compounds useful as relievers for headaches and as topical anti-inflammatory agents.

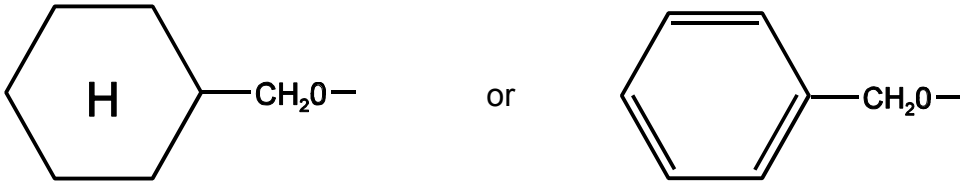
All compounds share a common chemical structure, the thiazole ring and the six atom heterocyclic compound bound to an imino group, which occupy a large portion of their structure. A six membered heterocyclic ring would not have been of sufficient similarity to allow a Markush grouping exhibiting unity, absent some teaching of equivalence in the prior art.

Example 21 - common structure:



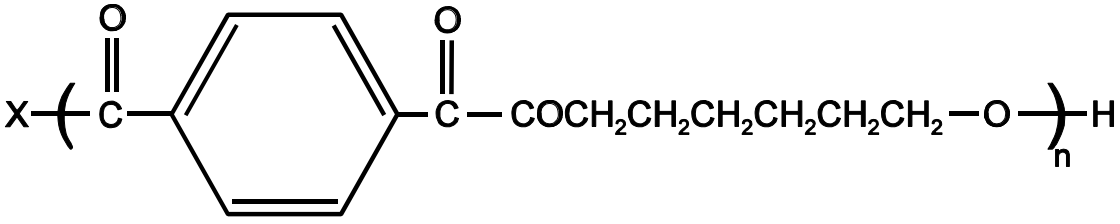
$1 \leq k \leq 10$

$200 \geq n+m \geq 100$



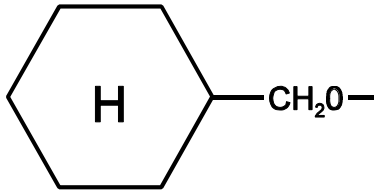
All of the above copolymers have in common a thermal degradation resistance property, due to the reduced number of free COOH radicals by esterification with X of the end COOH radicals which cause thermal degradation. The chemical structures of the alternatives are considered to be technically closely interrelated to one another. A grouping in one claim is therefore allowed.

Example 22 - common structure:

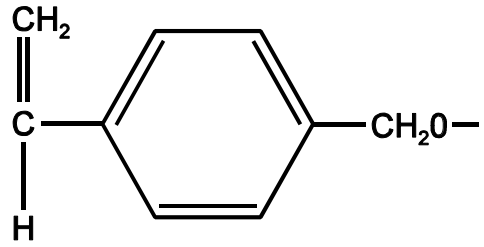


(Polyhexamethyleneterephtalate) $100 \geq n \geq 50$

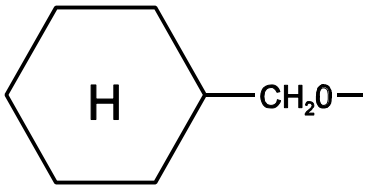
X:



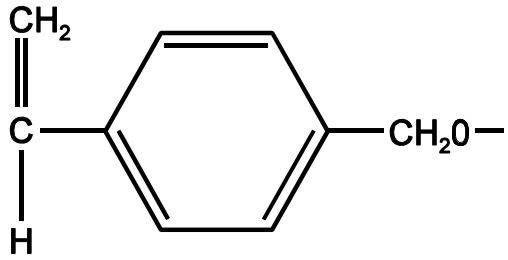
or



The compound obtained by esterifying the end COOH radical of known polyhexamethyleneterephtalate with



has a thermal degradationresistant property, due to the reduced number of free COOH radicals which cause thermal degradation. In contrast, the compound obtained by esterifying the end COOH radical of known polyhexamethyleneterephtalate with



serves as raw material for a setting resin when mixed with unsaturated monomer and cured (addition reaction).

All compounds covered by the claim do not have a property or activity in common. For example, the product obtained through esterification with the "CH_2=CH" compound does not have a thermal degradation resistant property. The grouping in a single application is not allowed.

Example 23 - No common structure:

Claim 1: A herbicidal composition consisting essentially of an effective amount of the mixture of A 2,4-D (2,4-dichlorophenoxy acetic acid) and B a second herbicide selected from the group consisting of copper sulfate, sodium chlorate, ammonium sulfamate, sodium trichloroacetate, dichloropropionic acid, 3-amino-2,5-dichlorobenzoic acid, diphenamid (an amide), ioxynil (nitrile), dinoseb (phenol), trifluralin (dinitroaniline), EPTC (thiocarbamate) and simazine (triazine) along with an inert carrier or diluent.

The different compounds under B must be members of a recognized class of compounds. Consequently in the present case a unity objection would be raised because the members of B are not recognized as a class of compounds, but, in fact, represent a plurality of classes which may be identified as follows:

a) inorganic salts:

copper sulfate
sodium chlorate
ammonium sulfamate

b) organic salts and carboxylic acids:

sodium trichloroacetate
dichloropropionic acid
3-amino-2,5-dichlorobenzoic acid

c) amides:

diphenamid

d) nitriles:

ioxynil

e) <u>phenols:</u>

dinoseb

f) <u>amines:</u>

trifluralin

g) <u>heterocyclic:</u>

simazine

Example 24

Claim 1: Catalysts for vapor phase oxidation of hydrocarbons, which consists of (X) or (X+a)

In this example (X) oxidizes RCH_3 into RCH_2OH and (X+a) oxidizes RCH_3 further into RCOOH.

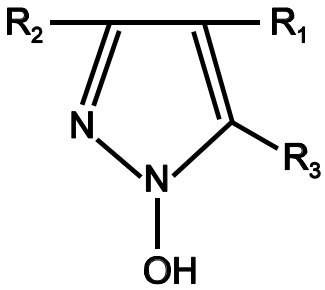
Both catalysts share a common component and a common activity as oxidation catalyst for RCH_3. With (X+a) the oxidation is more complete and goes until the carboxylic acid is formed but the activity still remains the same.

A Markush grouping is acceptable.

IV Intermediate/final products

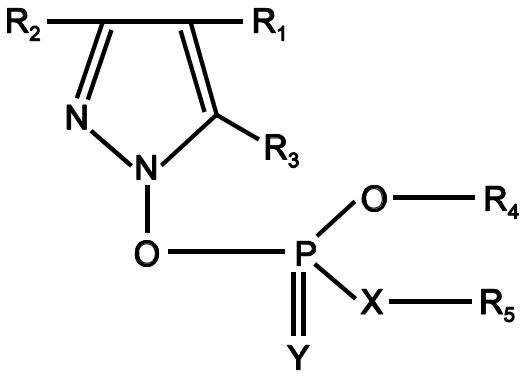
Example 25

Claim 1:



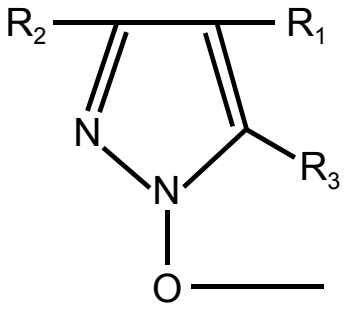
(Intermediate)

Claim 2:



(Final product)

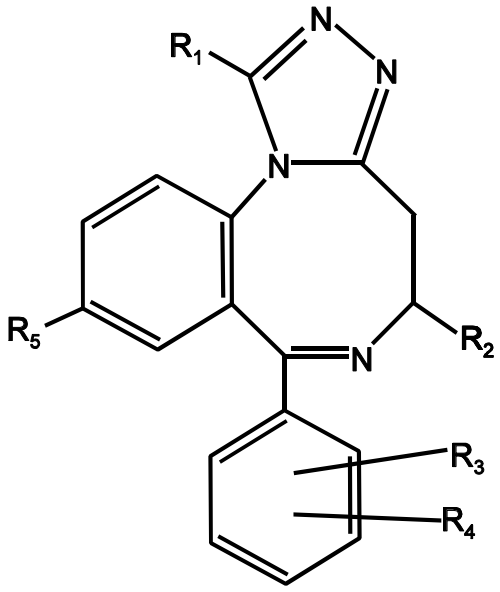
The chemical structures of the intermediate and final product are technically closely interrelated. The essential structural element incorporated into the final product is:



Therefore, unity exists between claims 1 and 2.

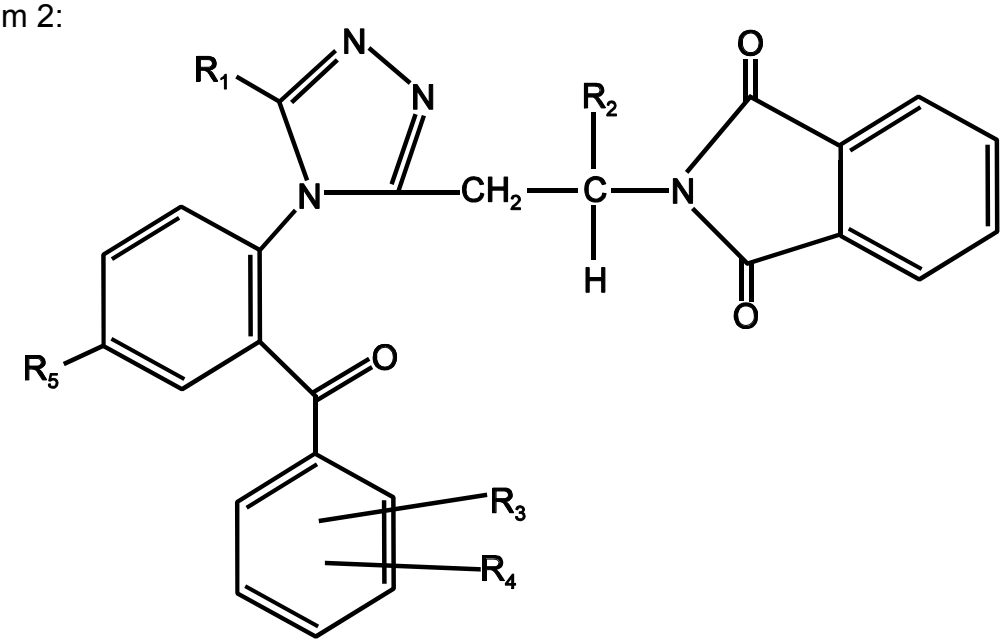
Example 26

Claim 1:



(I)

Claim 2:



(II)

(II) is described as an intermediate to make (I). The closure mechanism is one well known in the art. Though the basic structures of compound (I) (final product) and compound (II) (intermediate) differ considerably, compound (II) is an open ring precursor to compound (I). Both compounds share a common essential structural element which is the linkage comprising the two phenyl rings and the triazole ring. The chemical structures of the two compounds are therefore considered to be technically closely interrelated.

The example therefore satisfies the requirement for unity of invention.

Example 27

Claim 1: Amorphous polymer A (intermediate).

Claim 2: Crystalline polymer A (final product).

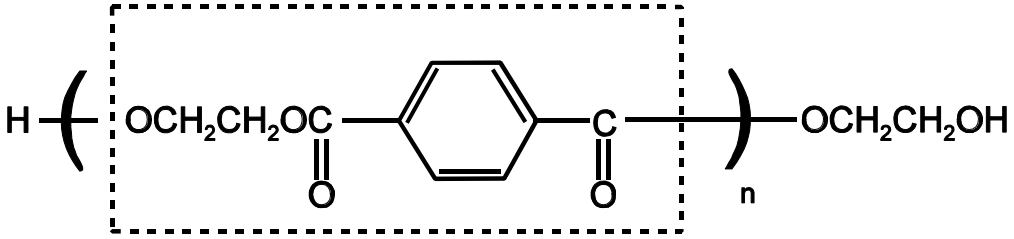
In this example a film of the amorphous polymer A is stretched to make it crystalline. Here unity exists because there is an intermediate final product relation in that amorphous polymer A is used as a starting product to prepare crystalline polymer A.

For purposes of further illustration, assume that the polymer A in this example is polyisoprene. Here the chemical structures of the intermediate, amorphous polyisoprene and the final product, crystalline polyisoprene have the same chemical structure.

Example 28

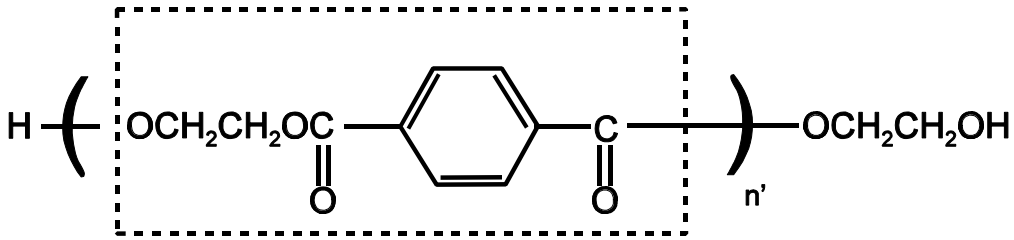
Claim 1: Polymeric compound useful as fiber material identified by the following general formula:

[repeating unit (X)]



(I)

Claim 2: Compound identified by the following general formula: (useful as intermediate for polymeric compound I)



(II)

(primary condensation product)

The two inventions are in an intermediate and final product relationship.

Substance (II) is a raw material for substance (I).

Meanwhile, both compounds share an essential structural element (repeating unit (X)) and are technically closely interrelated. The intermediate and final products therefore satisfy the requirements for unity.

Example 29

Claim 1: Novel compound having structure A. (Intermediate).

Claim 2: Product prepared by reacting A with a substance X. (Final Product).

Example 30

Claim 1: Reaction product of A and B. (Intermediate).

Claim 2: Product prepared by reacting the reaction product of A and B with substances X and Y. (Final Product).

In examples 29 and 30 the chemical structure(s) of the intermediate and/or the final product is not known. In (29) the structure of the product of claim 2 (the final product) is not known. In (30) the structures of the products of claim 1 (the intermediate) and claim 2 (the final product) are unknown. Unity exists if there is evidence which would lead one to conclude that the characteristic of the final product which is the inventive feature in the case are due to the intermediate. For example, the purpose for using the intermediates in (29) or (30) is to modify certain properties of the final product. The evidence may be in the form of test data in the specification showing the effect of the intermediate on the final product. If no such evidence exists then there is no unity on the basis of an intermediate-final product relationship.

Chapter 15
Requirements for patentability

15.01 Introduction

The subject matter protected by a patent is defined by the claims. This chapter deals with the various requirements imposed by law and jurisprudence on claims before they can be said to be directed to novel and unobvious subject matter in accordance with sections 28.2 and 28.3 of the *Patent Act*.

15.01.01 Novelty and anticipation

To be considered novel the whole of subject matter defined by a claim shall not form part of the state of the art. With respect to each claim in an application for patent in Canada the state of the art may be defined generally as everything disclosed in such a manner that it became available to the public in Canada or elsewhere before the **CLAIM DATE**. The **CLAIM DATE** of a claim in a Canadian patent application is the filing date of the application in Canada, unless, priority is claimed on an earlier filed application in Canada or elsewhere. In the latter case, the claim date is the filing date of the earliest application which supports the subject matter of the claim (Sections 2 and 28.1 of the *Patent Act*).

If the subject matter defined by a claim in an application is disclosed completely in a single prior art reference, it is considered to be anticipated by the reference (meaning lacking in novelty). In this situation the examiner will inform the applicant of the defect and requisition the applicant to amend the application to comply with the *Patent Act* and Rules or to provide arguments as to why the application does comply. The defect in this case is that the claim lacks novelty in view of the prior art (i.e. is anticipated by the reference). Although novelty is assessed on the basis of a single item of prior art, it is permitted to read into prior art things that can be considered to be implicit therein, but references may not be combined to find a lack of novelty. Combining references to show lack of novelty has been referred to as an improper "mosaic" of references (Pope v. Spanish River 46 RPC 1929).

15.01.02 Obviousness

A claim will be objected to under section 28.3 of the *Patent Act* if it is considered to be obvious to one of skill in the art or science, on the claim date. The test for obviousness is essentially whether or not an unimaginative skilled technician would, in the light of the state of the art and common general knowledge at the claim date, be led directly and without difficulty to the invention covered by the claim i.e. subject matter defined by the claim.

While some references do not show every detail of an invention claimed in an application, the differences between the two may be so slight that the invention claimed is obvious in view of the reference. Where the differences could have been made using the ordinary skill of one versed in the art, the claims are rejected for obviousness in view of the state of the prior art revealed in the reference or references.

Care must be exercised in assessing whether the differences between the claimed invention and the disclosure of the prior art, even if minor, produce unexpected results, in which event the element of unobviousness could be present.

It may be necessary to cite two or more references, or one reference and evidence of common knowledge to show all the features of an applicant's invention. Several references may be cited to show that the state of the art is such that the applicant failed to make any inventive improvement when the rejection is for obviousness rather than for anticipation. The references cannot be from such diverse arts that one skilled in the art of the invention claimed would not normally be expected to be aware of it. There may be invention in applying known principles of one art to another art if the different arts are sufficiently remote from each other, even though one skilled in the art would be expected to look beyond the immediate environment of the invention

It has been held by the courts to be obvious to do any of the following:

(a) To merely substitute superior for inferior materials, in the manufacture of one or more or all of the parts of a machine or manufacture.

(b) To merely change the size or dimensions of an object.

(c) To omit one or more of the parts of a machine or manufacture with a corresponding omission of function, unless that omission causes a new mode of operation of the parts retained.

(d) To change a process, machine, manufacture or composition of matter, by substituting an equivalent for any of its parts, unless the new part not only performs the function of the part for which it was substituted, but also performs another function, by another mode of operation, or develops new uses and properties of the article formed.

(e) To merely use an old process, machine or manufacture for a new but analogous purpose.

(f) To change the form or proportions of a machine or manufacture, unless a new mode of operation or function results.

(g) To produce an article which differs from an older article only in excellence of workmanship.

(h) To duplicate one or more of the parts of a machine or manufacture unless the duplication causes a new mode of operation, or produces a new unitary result.

(i) To combine old devices into a new machine or manufacture, without producing any new mode of operation.

15.02 Internal priority

A Canadian application may be used as a basis for priority for claims in subsequently filed applications within Canada (subparagraph 28.1(1)(a)(i) and subsection 28.1(2) of the *Patent Act*). In order to establish a priority claim, the filing date of the subject application must be within twelve months of the filing date of the preceding Canadian application (subsection 28.1(1)(b) of the *Patent Act*), and the request for priority must be made within a four month period after the filing of the subject application (paragraph 88(1)(b) of the *Patent Rules*). Where the subject matter of a claim is disclosed in more than one preceding Canadian or foreign application a priority claim may only be made if

the subject application is filed within 12 months of the earliest filed application (paragraph 28.4(4)(a) of the *Patent Act*).

15.03 Claim Date

The claim date of a claim in an application or patent is the filing date of the application in Canada, unless there is a priority claimed. In the latter case the claim date is the filing date of the earliest priority application which supports the subject matter of the claim.

In order to have a valid priority claim date the following conditions must be satisfied:

a) the previously filed Canadian or foreign application must disclose the subject matter defined in the claim of the subject application (subparagraph 28.1(1)(a)(i) and (ii) of the *Patent Act* and chapter 7 of this Manual);

b) the subject matter of the claim must be reasonably inferred from supported by the specification or drawings as they were originally filed in the preceding Canadian or foreign application (section 38.2(2) and (3) of the *Patent Act*);

c) the filing date of the subject application must be within twelve months of the filing date of the preceding Canadian or foreign application (section 28.1(b) of the *Patent Act*);

d) a request for priority must be made within a four month period after filing the subject application (section 28.4 of the *Patent Act*, paragraph 88(1)(b) of the *Patent Rules*), the applicant must provide the Commissioner with the date and country of filing of each previously regularly filed application on which the request for priority is based before the expiry the four-month period after the filing date of the subject application. The applicant must also provide the Commissioner with the application number of any such application before the expiry of the later of the four-month period after the filing date of the subject application and the twelve-month period after the

filing date of the previously filed application; and

e) upon requisition by the examiner, the applicant must provide a certified copy of any foreign application that forms a basis for the priority request (section 89 of the *Patent Rules*).

A situation may arise where an application may contain claims having different claim dates. This may occur when an applicant requests priority from two or more preceding applications, or when only part of the application has priority from a preceding application (section 28.4(4) of the *Patent Act*). A claim that defines subject matter in the alternative may be derived from several priority documents. In such a circumstance each alternative in the claim will be considered as a separate claim and will possess its own claim date (section 27(5) of the *Patent Act*).

15.04 Grace period

The public disclosure of claimed subject matter by the applicant, or by a person who obtained knowledge of this subject matter directly or indirectly from the applicant, will not be used to object to claims for lack of novelty or obviousness unless such disclosure was made more than one year (grace period) before the Canadian filing date (section 28.2(1)(a) of the *Patent Act*). For applications filed on or after October 1, 1996, any publication arising from an applicant's corresponding application in a foreign jurisdiction will not constitute a bar if the Canadian application is filed within 12 months of the publication (subsection 28.2(1)(a) of the *Patent Act*). For applications filed prior to October 1, 1996, any patent arising from an applicant's corresponding application in a foreign jurisdiction constitutes a bar unless (1) the Canadian application was filed before the foreign patent issued or (2) the foreign patent issued within 12 months after the filing of the first corresponding application by that inventor (subsection 27(2) of the *Patent Act* as it read prior to October 1, 1996).

15.05 Citation of art

Art cited in examiners' reports falls into two categories, that applied against the

application as a basis for objection or amendment, and that cited as of interest only. Art that is applied is usually placed near the start of the examiner's report under the heading "References Applied". An examiner may also place on record related art of interest that shows the state of the art.

15.05.01 References applied

References may be applied because they disclose the invention claimed in the application (section 28.2 of the *Patent Act*), or because they show that the claims define something that is obvious and therefore unpatentable (section 28.3 of the *Patent Act*).

15.05.02 References of interest

All references placed on record that are not relied upon as grounds for objection, or to requisition amendments, are cited to show the state of the art. They may be useful in identifying subject matter disclosed but not claimed by an applicant and which cannot be claimed through subsequent amendment of the application. On some occasions, the abstract of a document which appears pertinent will be cited as a reference of interest when the full document is not available to the examiner.

15.05.03 Identification of art cited

When a reference is first cited against an application, it is identified sufficiently so that the applicant will be able to locate it. For a publication, the author, title, publisher, date of publication and page number are normally given. In the case of a patent, the number, country, date on which it became available to the public and name of inventor or patentee (if known) are given. Sometimes, as in the case of United States patents, the patent classification at the time of issue is also listed. If specific pages of the disclosure or certain views in the drawings are relied upon, they are identified.

15.05.04 Incorrect citation of references

When the Patent Office discovers that a reference has been incorrectly cited in an examiner's action which has already been sent to the applicant, a letter of correction is sent to him. Such a letter does not extend the time set for replying to an outstanding

action, but if the applicant finds that as a result of the original error he is left with insufficient time to deal with the citation properly he may so indicate in his response. Under these circumstances, the objection made in view of the citation will be repeated in a subsequent action, thus giving the applicant a further opportunity to consider it.

15.06 Manner of citing references

Any patent, opened patent application, printed publication or public knowledge anywhere, disclosing the subject matter of the claim, and which disclosure was available to the public prior to the claim date of the subject application filed in Canada, constitutes a bar to the grant of a patent on that application, unless such disclosures originate from the applicant and comes within the grace period (section 28.2(1)(a) of the *Patent Act*). Therefore, public disclosures of the invention by the applicant or by a person who obtained knowledge of the invention, directly or indirectly from the applicant and which disclosures occurred more than one year before the Canadian filing date (grace period) of the application are also a bar. These disclosures are considered eligible citations both for lack of novelty and obviousness. The applicant is given the opportunity to overcome the citation by amendment to clear the reference or by presenting convincing arguments showing that the invention claimed differs patentably from that described in the cited reference.

For example, under section 28.2 of the *Patent Act* claims are objected to if the subject matter was:

(i) disclosed by the applicant, or by a person who gained knowledge of the invention from the applicant, so as to be available to the public more than one year prior to the Canadian filing date (section 28.2(1)(a) of the *Patent Act*), or

(ii) disclosed by another person so as to be available to the public before the claim date.

However, a foreign application of the same inventor disclosing the same invention as the corresponding Canadian application, and which was published, laid open, or granted prior to the Canadian filing date, is a bar to the grant of the Canadian Patent,

unless the Canadian application was filed within twelve months of such foreign publication or granting (grace period).

15.06.01 Citations of copending Canadian applications

A laid open copending application by a different applicant describing the same invention and having at least one claim with an earlier claim date then a subject application will be cited as a document that negates the novelty of the claims of the subject application (paragraph 28.2(1)(d)). However, a copending application cannot be cited against a subject application on the grounds of obviousness, unless the subject matter of the copending application was made available to the public prior to the claim date of the subject application. In this section, the subject application is the application under examination.

In the event that two or more copending applications describe the same invention the following situations may arise:

(A) No examination request on any application:

No consideration will be given to the copending applications until examination has been requested for at least one of the applications.

(B) Subject application is the earlier filed application:

(i) where the subject application has a Canadian filing date that predates the claim date of any other copending applications, no consideration will be given to the other copending applications and examination of the subject application will proceed as though they did not exist;

(ii) where any copending application has at least one claim date earlier than the Canadian filing date of the subject application then the relevant claim dates of the subject application and copending application need to be verified (section 89 of the *Patent Rules*);

(C) Subject application is the later filed application:

where the subject application has a Canadian filing date that is preceded by the claim date of any other copending application describing the same invention, then;

(i) where the copending application having the earlier claim date has been laid open to the public in Canada or in any other country before the claim date of the subject application, then the copending application or its foreign counterpart having the earlier claim date is cited against the subject application as a publication;

(ii) where the copending application having the earlier claim date was not available to the public in Canada or in any other country before the filing date of the subject application, the copending application is cited under paragraph 28.2(1)(c) or (d) of the *Patent Act* after the copending application is laid open. Verification of the claim dates of the copending and the subject application is necessary. The copending application cannot be cited against the subject application as a reference for obviousness since the disclosure of the subject matter was not available to the public at the claim date of subject application (subsection 28.3(b) of the *Patent Act*).

(D) Overlap between copending applications of the same applicant:

Where an examination request is received for an application and there is an application by the same applicant describing and claiming the same invention having an earlier claim date then:

(i) Where the application having the earlier claim date has been made available to the public in Canada or in any other country more than one year (grace period) before the application under examination was filed in Canada, then the application having the earlier claim date would be applied against the subject application in the same manner as any other citable published material;

(ii) Where the application having the earlier claim date has not been made available to the public for more than one year before the application under

Examination was filed in Canada, the application having the earlier claim date would be cited requisitioning the applicant to remove the overlapping claimed subject matter. The citation for overlapping subject matter is applied irrespective of whether or not internal priority has been established on the previously filed application. Since the term of protection initiates from the filing date and not the claim date, the applicant must choose in which application to prosecute the overlapping subject matter in order to prevent extension of the exclusive right (sections 44 and 45 of the *Patent Act*). This precludes using the applicants' earlier filed application against his/her own later filed application(s) ("self collision").

15.06.02 Copending PCT applications

Applications filed under the provisions of the Patent Cooperation Treaty are a special case in regard to their copendency with other Canadian applications. Section 63 of the *Patent Rules* particularly indicates that such applications will be deemed to be applications filed in Canada at the time they become national phase applications.

For the purpose of a citation under section 28.2(1)(c) and (d) of the *Patent Act* in the prosecution of another application, a PCT application will benefit from its filing date or priority date only after it has entered the national phase. This could be 20 months after the filing date of the international application but may be delayed up to 42 months in certain circumstances. Should an examiner wish to cite a PCT application the status with respect to national entry in Canada must first be verified. If such application has not entered the national phase, it may be cited only as a publication using the international publication date.

15.07 Jurisprudence

The following decisions of the courts are of importance in considering the subject matter of this chapter:

Obviousness/Anticipation

Fada Radio v CGE	SCR	520	1927
Christiani v Rice	Ex CR	111	1929
	SCR	443	1930
	RPC	511	1931
Mico Products v Acetol	Ex CR	64	1930
Crosley Radio v CGE	SCR	551	1936
K v Uhleman Optical	Ex CR	142	1950
	1 SCR	143	1952
Comm of Pat v Ciba	SCR	378	1959
Lovell v Beatty	41 CPR	18	1962
Defrees v Dominion Auto	Ex CR	331	1963
Lamb Sets v Carlton	Ex CR	377	1964
Comm of Pat v Farbweke	SCR	49	1964
Gibney v Ford	2 Ex CR	279	1972
Xerox v IBM	33 CPR (2d)	24	1977
Marzon v Eli Lilly	37 CPR (2d)	37	1978
Globe Union v Varta	57 CPR (2d)	132	1978
Reeves Bros v Toronto	43 CPR (2d)	145	1978
Farbwerke v Halocarbon	2 SCR	929	1979
	74 CPR (2d)	95	1983
Beecham v Procter & Gamble	61 CPR (2d)	1	1982
Cutter v Baxter Travenol	68 CPR (3d)	179	1983
	74 CPR (2d)	95	1983
Johnston Controls v Varta	80 CPR (2d)	1	1984
Windsurfing v Bic Sports	8 CPR (3d)	241	1985
Beloit v Valmet	8 CPR (3d)	289	1986
Sandvick v Windsor	8 CPR (3d)	433	1986
Tye-Sil v Diversified	16 CPR (3d)	207	1987
	35 CPR (3d)	350	1991

Reading & Bates v Baker	18 CPR (3d)	181	1987
	35 CPR (3d)	350	1991
Apotex v Hoffman-La Roche	15 CPR (3d)	217	1987
	24 CPR (3d)	289	1989
Brushtech v Liberty	23 CPR (3d)	370	1988
Gorse v Upwardor	25 CPR (3d)	166	1989
	40 CPR (3d)	479	1992
AT&T Tech v Mitel	26 CPR (3d)	238	1989
Control Data v Senstar	23 CPR (3d)	449	1989
Lubrizol v Imperial Oil	33 CPR (3d)	1	1990
	45 CPR (3d)	449	1992
Procter & Gamble v Kimberly	40 CPR (3d)	1	1991
Martinray v Fabricants	14 CPR (3d)	1	1991
Rothmans, Benson & Hedges	35 CPR (3d)	417	1991
Procter Gamble v Kimberly	40 CPR (3d)	1	1991
Re: Hering's Application	53 CPR (3d)	390	1992
	47 CPR (3d)	188	1993
Atlas v CIL	41 CPR (3d)	348	1992
Allied v Du Pont	52 CPR (3d)	351	1993
	50 CPR (3d)	1	1993
CFM v Wolf Steel	50 CPR (3d)	215	1993
	64 CPR (3d)	75	1995
Hi-Quail v Rea's Welding	55 CPR (3d)	224	1994
Anderson v Machineries	58 CPR (3d)	449	1994
Almecon v Nutron	65 CPR (3d)	417	1996

<u>"What would infringe later, anticipates earlier"</u>

Lightning Fastener v Colonial	Ex CR	89	1932
	SCR	363	1933
	51 RPC	349	1934
EMI v Lisen	56 RPC	23	1939
Atlas Copco v CIL	41 CPR (3d)	348	1992
CFM v Wolf Steel	50 CPR (3d)	215	1993
	64 CPR (3d)	75	1995

subject matter reasonable inferred

Re Application No. 139,256	51 CPR (2d)	95	1977

overlapping subject matter/double patenting

Short Milling v George Weston	Ex CR	69	1941
Rohm & Haas v Comm of Patents	30 CPR	113	1959
Lovell v Beatty	41 CPR	18	1962
Boehringer v Bell-Craig	39 CPR	201	1962
Comm of Pat v Farbweke	41 CPR	9	1963
	SCR	49	1964
Xerox v IBM	33 CPR (2d)	24	1977
Consolboard v MacMillan	56 CPR (2d)	145	1981
	1 SCR	504	1981
Beecham v Procter & Gamble	61 CPR (2d)	1	1982
Re: Hedstrom	31 CPR (3d)	324	1989

types of prior art (printed documents, experimental use etc.)

Gibney v Ford	2 Ex CR	279	1972
Leithiser v Pengo Hydra-Pull	12 CPR (2d)	117	1973
	2 FC	954	1974
Xerox v IBM	33 CPR (2d)	24	1977
Koehering v Owens-Illinois	40 CPR (2d)	72	1978
	52 CPR (2d)	1	1980
Beecham v Procter & Gamble	61 CPR (2d)	1	1982
Johnston Controls v Varta	80 CPR (2d)	1	1984
J M Voith v Beloit	27 CPR (3d)	289	1989
Beloit v Valmet	36 CPR (3d)	322	1991
Hi-Quail v Rea's Welding	55 CPR (3d)	224	1994

Chapter 16
Computer implemented inventions

16.01 Scope of this chapter

This chapter relates to inventions which utilize the processing function of a computer. These inventions are implemented, at least in part, by means of a computer program or computer hardware. Although *Schlumberger* [1] is the only Canadian court case that addresses the patentability of a computer implemented subject matter, computer implemented subject matter is examined in a manner which is equivalent to subject matter in other fields of technology and the same principles apply. Computer programs generally produce tangible results in all fields of industry and commerce, yet not all new computer programs are patentable; this chapter outlines the boundary between patentable and unpatentable software related subject matter.

16.01.01 Complementary forms of Intellectual Property

Intellectual property addresses the dual nature of computer programs by providing complementary protection through copyright and patents. While copyright protects the literary form of a computer program, patents protect the active functionality of the computer program.

16.02 Correct and full description of the invention

The specification must describe the invention in normal language as in other technical fields and not solely as source code. Computer program listings alone do not fully describe the invention, but may be useful in illustrating specific embodiments. The invention should be described in sufficient detail for one skilled in the art to make and work the invention, this may comprise but is not restricted to: a description of hardware, a description of the modules of a computer program, and data structures.

Questions to be asked include:

Hardware

Are the important elements of the computer system, e.g. processors, primary and

secondary memories, buses, interfaces, displays, peripherals described to the point that a person skilled in the art can make or use the invention? Has the interrelationship between the computer elements and network been described to provide the desired functionality of the invention?

Computer program

Is the functional representation of the computer program described? What are the computer program functional modules that are called into play, namely interfaces, the steps to be performed, the sequences, the timing, the location of the modules in the system, processes, algorithms, internal and external logical files and the number and kind of interactive inquiries? Do segments of the program in particular components function separately from the remainder of the computer program?

Data

What is the source and the form of input data? What is the form of the output data? What is the format of data when stored or transmitted? What is the flow of the processing? How do the software modules interact with and transform the data? These questions usually should be answered by the description.

Hardware and functional interrelationships between computing processes and data are correlated with claim limitations to ensure that the claimed features are fully disclosed and integrated with the elements of the invention in accordance with subsection 27(3) of the *Patent Act*. The interaction of the three entities determines the configuration of the computing system and the manner in which the desired effect of the method is obtained.

It is not only important that these elements, features, and processing steps be described, but that they be described as being integrated into an inventive combination [2].

In the absence of a full and correct description of the invention by means of hardware, software and data structure, the application may be considered as describing a mere scheme or as being directed to calculations. A description is not sufficient if it only teaches that useful information could be extracted by making certain calculations according to certain formulae [3].

16.03 Utility, subject matter and obviousness

Sections 16.03.01 to 16.03.03 expand on concepts introduced in chapter 12 herein.

16.03.01 Utility

The outcome of the claimed method or system must be achievable from the teachings in the description without subjective judgment or interpretation by a person having skill in the art. Subject matter that is not reproducible by a person skilled in the art is not patentable because it is not useful. A claim will thus not be patentable if it contains steps or other subject matter that involve an interpretative or judgmental aspect or are dependent upon the intelligence and reasoning of the human mind for reliable and consistent results [4] (see12.03.03 and 16.05.02, herein).

In *Lawson* [5], the reproducibility of the method of dividing land was not an issue, despite the popular assumption to the contrary. The method was considered to be non-statutory subject matter because it was an art belonging to a professional field rather than a manual art or skill [6]; the method did not make a vendible product.

16.03.02 Subject matter

The claimed subject matter must fall in one of the recognized categories of art, process, machine, manufacture or composition of matter (12.02.01 herein).

Software expressed as lines of code or listings is considered to be a literary work under the *Copyright Act*. Software in the form of a data model or an algorithm is automatically excluded from patentability under subsection 27(8) of the *Patent Act*, in the same manner as a mathematical formula, and is considered to be equivalent to a mere scientific principle or abstract theorem. However, computer related subject matter is not excluded from patentability if the traditional criteria for patentability are satisfied. Software that has been integrated with statutory subject matter may be patentable [7].

For a method to be considered an art under section 2 of the *Patent Act*, the method must be:

a) an act or series of acts performed by some physical agent upon some physical object and producing in such object some change of either character or

condition; and

b) it must produce an essentially economic result relating to trade, industry or commerce (see section 12.02.01 herein).

A claim to a method consisting only of making certain calculations according to certain formulae is, even if it results in useful information, excluded from patentability under subsection 27(8) of the *Patent Act*. Such a method does not include an act or series of acts performed by some physical agent upon some physical object and producing in such object some change either of character or of condition. Furthermore, the method does not produce an essentially economic result relating to trade, industry or commerce (see 16.05.01 herein).

In practice, even when claims relate to categories not recognized as statutory subject matter, a search of the closest prior art document is performed, if possible.

16.03.03 Obviousness

Section 28.3 of the *Patent Act* states that the subject matter of a claim shall not be obvious. This shall apply to computer implemented subject matter as it does to other subject matter, but it should be noted that many methods, schemes, algorithms, etc. can easily be automated or implemented with a computer or software, without employing inventive ingenuity. The presence of a programmed general purpose computer or a program for such a computer does not lend patentability to, nor subtract patentability from, an apparatus or process.

A claim must be examined as a whole (see also 15.01.02 herein). Although the claimed subject matter may consist of old elements, the combination as a whole may be inventive. However, to be considered inventive, the combination must lead to a new unitary result that is different from the sum of the results of the elements; there must be some cooperation or interaction between the elements that produces some unexpected advantage, result, or use. As was stated in *Schlumberger*, the mere presence of a computer (i.e. known technology) does not change the nature of a discovery [8]. Using known or general purpose equipment and technology to automate or implement a non-statutory method fails to comply with section 28.3 of the *Patent Act*. Likewise, the general purpose computer or equipment that has been programmed, in a known manner, to perform the non-statutory method also fails to comply with section 28.3 of the *Patent Act* (e.g. a general purpose computer which has been programmed in a known manner to solve a new equation and display the result).

It is known that executing a computer program reconfigures a computer in a particular way through the program's instructions and commands; this reconfiguration is equivalent to differently wired circuits in the hardware [9]. There is an inventive combination when this reconfiguration:

a) results in a new and non-analogous use for a known machine (e.g. a general-purpose computer); or
b) provides an unobvious machine improvement.

A new use has resulted if executing the algorithm in the disclosed combination provides unexpected functional (as opposed to intellectual or aesthetic) results. There is no inventive faculty required in adapting a known system or device to a new purpose if the new purpose is analogous to any purpose to which the system or device has already been applied in an analogous way [10]. For example, general purpose computers are expected to, among other things, perform calculations, solve equations, and output or store results; programmable slot machines are expected to, among other things, perform calculations, output certain results, and dispense winnings in accordance with certain probabilities; etc.

A machine improvement has been provided if executing the algorithm in the disclosed combination provides functional advantages over the prior art that are peculiar to the disclosed integrated combination.

There is no inventive combination when, for example, a system is merely providing a representation, in a known manner, of the results of one or more of the calculations performed during the execution of the algorithm - this result does not provide a non-analogous use for the system, nor does it indicate an inventive machine improvement.

A computer readable medium containing only subject matter of an abstract or intellectual character, such as music or textual information, is not an inventive combination. However, a computer readable medium containing a program or data structure is an inventive combination if that medium, when used in a computer, causes that computer to fulfill a new and non-analogous use.

16.04 Claim categories

Three categories of claims are possible for computer implemented inventions in

accordance with section 2 of the *Patent Act*:

1. Art or process (method) claims;
2. Machine (apparatus and system) claims; and
3. Manufacture (products or computer media, including signals, embodying code or data structures) claims.

16.04.01 Art or process claims

Claims in this category define the series of operations which takes place in the computer when the computer program is run. The claim must describe the appropriate steps as carried out by, or on, the inventive combination of hardware and/or software. The following method claim defines a way of encrypting data for storage on a card.

Example

Claim 1. A method of enrolling signature information of an authorized user onto an identification card comprising the steps of:

a) collecting samples of a signal at a rate of at least “n” times a frequency component of said signal which is to be preserved, where “n” is an integer greater than four;
b) digitally filtering said samples representing said signal to remove high frequencies; and
c) storing said filtered samples on said card.

16.04.02 Machine claims

A computer which has been configured with a novel computer program is considered to be a different machine from the same computer when programmed in another way. The actions performed in the computer are directed by the computer program. The functional steps in the method claim have been replaced by functional components such as “means for” expressions to define the structural elements of the computer.

Example

Claim 2. An apparatus for enrolling signature information signals of an authorized user onto an identification card comprising:

a) means for collecting samples of a signal at a rate of at least “n” times a frequency

component of said signal which is to be preserved, where “n” is an integer greater than four;

b) a filter for digitally filtering said samples representing said signal to remove high frequencies;

c) means for storing said filtered samples on said card.

16.04.03 Manufacture claims

The third category of claims defines a computer readable memory storing statements and instructions for execution by a data processing system to direct the system to function in a particular manner. This program storage device claim is variously referred to as a computer readable medium claim, software claim, record carrier claim, article of manufacture or computer product. The computer product is understood to be a product which is adapted to cooperate with a data processing system rather than being a product which is produced by the data processing system.

16.04.03*a* *Computer program on a record carrier*

Claims comprising computer programs must be directed to the medium embodying the program in a material or physical form in order to distinguish the program from an abstract theorem and as an article of manufacture. The medium helps to define the boundaries of the invention by the claim. The medium carrying the program code imparts to the code the attribute of a product or manufacture under section 2 of the *Patent Act*. The claim must recite the material or physical medium in a positive manner, storing or embodying the computer readable code of the computer program for execution in the computer.

Example

Claim 3. A computer readable memory having recorded thereon statements and instructions for execution by a computer to carry out the method of claim 1.

Claim 3 is an independent claim, but to avoid repetition of the process, claim 3 refers to claim 1. Claim 3 is not a product by process claim as defined in section 11.08.01 herein because it is not a product which has been created by the process for enrolling signature information.

An alternative form of the product claim defines a computer readable medium for use in

configuring the computer, where the stored statements and instructions are recited in a code-means-plus-function format as illustrated below.

Example

Claim 4. A computer program product, comprising:
a memory having computer readable code embodied therein, for execution by a CPU, for compressing signature information signals of an authorized user onto an identification card, said code comprising:

a) sampling code means for collecting samples of a signal at a rate of at least “n” times a frequency component of said signal which is to be preserved, where “n” is an integer greater than four;
b) digital filtering code means for digitally filtering said samples representing said signal to remove high frequencies; and
c) storing code means for storing the filtered samples on said card.

However, a claimed computer readable medium may not carry information which is not encodable and storable in a memory or carrier as shown in the following example:

Claim 5. A computer program for compressing signature information signals of an authorized user onto an identification card comprising:

a) sampling code means for collecting samples of a signal at a rate of at least “n” times a frequency component of said signal which is to be preserved, where n is an integer greater than four;
b) digital filtering code means for digitally filtering said samples representing said signal to remove high frequencies; and
c) storing code means for storing the filtered samples on said card.

The above claim is not a *manufacture*, since no storage medium has been defined having the computer program recorded thereon. Furthermore, the claim does not specify or imply that the computer program is computer readable. Examiners will object to this claim for non-compliance with section 2 of the *Patent Act*, and for being informal under subsection 27(4) of the *Patent Act*.

16.04.03*b* *Computer program on a signal medium*

The computer medium may exist in a transitory state of a propagated signal. The carrier of the computer program is a transmissible carrier in the following acceptable example.

Example

Claim 6. A carrier wave embodying a computer data signal representing sequences of statements and instructions which, when executed by a processor cause the processor to enroll signature information of an authorized user onto an identification card, the statements and instructions comprising the steps of:

a) collecting samples of a signal at a rate of at least n times a frequency component of said signal which is to be preserved, where n is an integer greater than four;
b) digitally filtering said samples representing said signal to remove high frequencies; and
c) storing the remaining of the filtered samples on said card.

16.04.03*c* *Data structures*

Data structures represent the physical implementation of a data model for organizing and representing information which is used by a computer program. The data structure imposes a physical organization on the data according to attributes of the data as opposed to the content of the data. In the following example the data, which is stored in the table, is functional data because it contains pointers to other data within the data structure.

Example

Claim 7. A memory for storing data for access by an application program being executed on a data processing system, comprising:

a data structure stored in said memory, said data structure including information resident in a database used by said application program and including:

a) compressed video data stored in said memory having a plurality of frames including a plurality of reference frames, said compressed video data representing video footage in compressed form; and
b) a table stored in said memory associating an identifier for each portion of said video footage to be accessed with a pointer corresponding to the closest reference frame to a first frame of the portion of said video footage to be accessed such that said table may subsequently be displayed to allow a user to select one of the identifiers stored in said table using an input device and thereby to access and view the portion of said video footage corresponding to the

selected identifier.

16.05 Examples

The following examples of claims illustrate the principles discussed in this chapter.

16.05.01 Examples involving mathematical formulae

The following two examples show unacceptable claims that involve algorithms or equations.

Claim 8. A method for calculating value “f”, comprising the step of:

calculating f = m · a.

Formulae, equations, and algorithms (which are merely methods or rules for performing calculations in accordance with formulae, equations, mathematical models, etc.), are all excluded by subsection 27(8) of the *Patent Act* (see section 12.04.03 herein). In addition, the method of claim 8 is not an act or series of acts performed by some physical agent upon some physical object and producing in such object some change either of character or of condition, and it does not produce an essentially economic result in relation to trade, industry or commerce (see sections 12.02.01 and 12.02.01*a* respectively).

Claim 9. A computer implemented method for determining the force “f” provided by a moving brick, comprising the steps of:

a) inputting variable “m”, where “m” is the mass of the moving brick measured in kilograms;
b) inputting variable “a”, where a is the acceleration of the moving brick measured in meters per second per second;
c) automatically calculating f = m · a, where “f” is the force provided by the moving brick in newtons; and
d) displaying variable “f”.

The method of claim 9 does not appear to be excluded by subsection 27(8) of the *Patent Act*, and is considered a series of steps carried out by a physical agent upon some physical object, because the wording of the claim clearly indicates that the steps

involve a computer receiving, processing, and outputting data (see sections 12.04.03 and 12.02.01 herein, respectively). However, the method is still not statutory subject matter because it does not produce an essentially economic result in relation to trade, commerce, or industry (see section 12.02.01*a* herein). Furthermore, it is an obvious physical embodiment of a non-statutory method or algorithm, and fails to comply with section 28.3 of the *Patent Act*. The subject matter of claim 8 cannot be made patentable by arbitrarily narrowing the field of use of the equation, or by adding input steps and post-solution steps to the algorithm (see section 16.03.03 herein). The fact that the variables used in this claimed method may describe physical entities in the real world has no bearing on whether or not the method meets any of the requirements for statutory subject matter.

The following two examples show patentable matter that incorporates an algorithm or equation.

Claim 10. A computer implemented method for evaluating $f=a^y$ more quickly and efficiently at the expense of a given amount of accuracy, comprising the steps of:

a) receiving as input, variable “y” and desired base “a”;
b) automatically calculating a first scaled value using “y”, “a”, and a predetermined base;
c) automatically generating an approximation value using said first scaled value and a stored predetermined set of values;
d) automatically determining a first exponential value having said predetermined base;
e) automatically generating an adjusted error value using said first scaled value and said approximation value; and
f) automatically determining a correction value using said adjusted error value;
g) automatically determining a substantially accurate value for “f”, using said first exponential value and said correction value; and
h) outputting said substantially accurate value for “f”.

The description and drawings show that the disclosed algorithm allows a computer to evaluate the exponential equation more quickly and efficiently at the expense of a given amount of accuracy, yet the algorithm itself does not provide analogous advantages outside of the disclosed computer. For example, in other environments for solving equations (e.g. pencil and paper), following the algorithm actually takes longer, requires more work, and results in a less accurate solution than accepted methods in those environments. While the equation and the algorithm for solving it remain non-statutory,

the appropriately programmed computer (or inventive combination), the method *as followed by the computer* (the method of operation of the inventive machine), and the software for making the computer execute the algorithm could all be claimed [11].

Claim 11. A process for stripping photoresist x from a wafer, comprising the following steps:

carry out the usual steps involved in submersing a wafer in an organic solvent to remove photoresist x from the wafer, wherein acidity a of the organic solvent, temperature "T" of the organic solvent, and duration "t" of the wafer's submersion in the organic solvent are controlled such that the rate of removal of the photoresist "x" is $T^2 \cdot (t/a)$.

The description and drawings show that during the stripping of a certain photoresist from a wafer, optimal results occur when an equation relating the acidity of the organic solvent used, the temperature of the solvent, and the duration of the immersion holds true. The claimed process clearly is a series of steps performed by a physical agent upon a physical object producing a change of character and condition in that object. Since the process produces a vendible product (i.e. the stripped wafer), it produces an essentially economic result in relation to trade, commerce and industry (see sections 12.02.01 and 12.02.01*a* herein). A claimed (new, inventive, and useful) photoresist stripping process in which the acidity of the solvent is given and the temperature and the duration of the immersion are controlled in accordance with the equation would be patentable.

16.05.02 Examples of non-reproducible subject matter

a) In *Schlumberger*, the data output parameters were presented in graphical form representative of at least one formation characteristic. The discovery that useful information could be extracted from the measurements presented in graphical form was not considered to be an invention [12]. The Patent Office considers the extraction of information from the graphics to have depended on subjective judgement and interpretation, and that the claimed invention can therefore not be reproduced (see section 16.03.01 herein).

b) A method for indicating that certain information associated with a displayed item is accessible. The computer screen displays a symbol adjacent to the item. The nature of the information is indicated by the relative location of the symbol to the

displayed item. Since the symbol and its location relative to the item requires subjective interpretative or judgmental considerations by the viewer to know what the information is, this method is not an invention (see section 16.03.01 herein).

16.05.03 Examples of subject matter not fitting within a category recognized as statutory

a) The practice of configuring a building lot belongs to the skill of a surveyor or planner rather than to an art or manufacture within the meaning of those words of section 2 of the *Patent Act.* The preparation of a plan of subdivisions is clearly not a method of operation or use for an inventive machine or substance, nor does it produce a vendible product (see section 12.02.01*a* herein). Even if the land were marked and staked in accordance with the plan, the land is not functionally different from what it was originally; its condition is unchanged. Therefore, the preparation of the plan does not produce an essentially economic result in relation to trade, commerce, or industry, and it does not constitute "art" under section 2 of the *Patent Act* (see sections16.05.04 and 12.02.01, herein).

b) A computerized online dating service having a database stores subscriber information for searching. The database is inputted with personal characteristics and preference criteria of subscribers. It is part of the skill of a professional matchmaker to know that likes attract and to select the input parameters. Database records are searched in order to match the characteristics and criteria of the subscribers. If no matches are obtained, the database is searched automatically using relaxed criteria until at least one match is returned (It is also within the skill of a professional matchmaker to know that opposites attract). The description of the system for implementing the matchmaking scheme refers to commonplace technology and does not disclose any specific combination of hardware, software and data structures. The scheme of matching subscribers falls within the skill of a professional matchmaker, and does not constitute a method of operating an inventive machine nor produce a vendible product (see section 12.02.01*a* herein). Therefore, the scheme does not produce an essentially economic result in relation to trade, commerce, or industry, and is not an "art" under section 2 of the *Patent Act* (see section 12.02.01 herein). Claiming the method as involving conventional or unspecified computer equipment does not change this, because it is still not a method of operating an inventive machine. By analogy, if the computer programmed to carry out the method was claimed, it would be considered an obvious mechanical embodiment in

conventional computing equipment of a non-statutory method and the claim would therefore not comply with section 28.3 of the *Patent Act* (see section 16.03.03 herein).

The example of the online dating service contrasts with the laser eye surgery case [13]. In that case it was held that an inventive apparatus for eye surgery was taught, and that the claims involving the apparatus did not pose a limitation upon the surgeon's skills. Since it was an inventive apparatus meant to assist the surgeon in the operation on the human eye, the method of operation (of the apparatus) could have been claimed. In the dating service example, the assistance provided by the online dating service system does not extend beyond the advantages that are to be expected from the mere automation of the matchmaking scheme by using conventional equipment; the scheme has not been (and probably cannot be) properly integrated with the rest of the system to form an inventive combination (see also section 16.03.03 herein). No invention is taught in the computer implementation of the scheme, only professional skills.

c) A further example involving professional skills relates to the implementation of a practical financial strategy or scheme by means of a conventional computer system. The Commissioner held that such a computer-based system is nothing more than a computer which is programmed to carry out a set of calculations. Professional skills cannot be made patentable by substituting a programmed computer for the individual who would have used the same input information to arrive at the same decisions [14].

16.05.04 Subdividing land

The subject matter of the following claim is directed to economizing the area of building lots by creating lots having a wide frontage and by contouring side lot lines while still permitting a large building site on the building lot.

Claim 12. A data processing system for subdividing a parcel of land into building lots having building sites comprising:

a) data storage means arranged to hold the dimensions of the parcel of land having at least one front line along the length of one side of the parcel of land and a rear line along the opposite side of the parcel of land and a minimum building lot area and a minimum access frontage and a building site area;

b) processing means arranged to allocate lots on said parcel of land by calculating lot lines such that each lot has a major frontage on one side and a minor frontage on the other side, whereby major and minor frontages alternately coincide with the frontage line and the rear line; and

c) means for calculating side lot lines wherein each side lot line is created by generating a first arc from a circle intersecting the major frontage of the lot and centered on a point on the medial axis of the lot, and a second arc from a circle intersecting the minor frontage of the lot and centered on a point on the medial axis of an adjacent lot, said arcs having a point of conjunction, wherein each side lot line is generally S-shaped, and each lot has the general shape of a champagne glass, the minimum building lot area and a building site having the building site area, said building sites having variable depth from said frontage line; and

d) means for generating a technical representation of the parcel of land subdivided into building lots on the basis of said allocation.

Although claim 12 describes a statutory “machine” under section 2 of the *Patent Act*, it still would not conform with section 28.3 of the *Patent Act* if the description and drawings merely stated that the method would lend itself to implementation through commonplace computer technology (see section 16.03.03 herein). In *Lawson*, the method of laying out land was considered to be a professional skill or art rather than a manual art [15]. The method did not produce an essentially economic result in relation to trade, commerce or industry (see section 12.02.01*a* herein). Merely using known computing technology to automate a method in an obvious manner cannot secure a patent for an otherwise non-statutory method.

The exercise of professional skill is not patentable but invention may lie in systems for subdividing land. A complete description of the hardware, software and data structures and the interactions with the data will go a long way to establish patentable subject matter in a computing application. A full description of the hardware, program and data components in an integrated system, and an amended claim 12 defining the inventive features of the computer implementation of the method, may elevate the subject matter from a mere method belonging to a professional field into an art, process or machine of section 2 of the *Patent Act*.

16.05.05 Non patentable media claims

A computer-readable medium storing data may be a statutory “manufacture” under section 2 of the *Patent Act*, but it still will not be patentable if the stored data does not provide inventive functionality. For example, data or information representing a molecular structure or piece of music does not possess processing functionality. Record carriers embodying, in a known or unspecified manner, such non-functional descriptive material, will be considered as obvious physical embodiments of non-statutory subject matter, and as not conforming with section 28.3 of the *Patent Act.*

Example

Claim 13. A computer readable storage medium having recorded thereon music or a literary work.

The descriptive material on the storage medium has information for presentation on a display or for creating sound. The descriptive material stored on the medium does not provide the functionality for reconfiguring the computer to process input data. So, claim 13 may be describing a statutory “manufacture”, but it is an obvious physical embodiment of non-statutory subject matter, and still does not conform to section 28.3 of the *Patent Act*.

Example

Claim 14. Computer readable medium having recorded thereon the nucleotide sequence depicted in SEQ ID NO:5, a representative fragment thereof or a nucleotide sequence at least 99% identical to the nucleotide sequence in SEQ ID NO:5.

Processing of the descriptive material in the computer does not alter or reconfigure the function of the computer nor transform the computer into a new machine. Although claim 14 describes a statutory “manufacture”, it would be obvious to store non-functional descriptive material (like the nucleotide sequence) upon it. Claim 14 would therefore be considered not to conform with section 28.3 of the *Patent Act*.

Chapter 16 Endnotes

1 *Schlumberger Canada Ltd. v. Commissioner of Patents* [1981] 63 C.P.R. (2d) 261 (F.C.A.), dismissing leave to appeal (1981) 56 C.P.R. (2d) 204 (S.C.C.)

2 "Appeal Board Decisions with Respect to Computer Software", T. McDonough, Canadian Intellectual Property Review, August 1985, vol. 2, no. 1, pp. 10-16

3 *Schlumberger, supra* note 1

4 Re Application for Patent Containing Claims that Read on Mental Steps Performed by a Human Operator in Deciding to Transmit a Signal (1972) 23 C.P.R. (2nd) 93.

5 *Lawson v. Commissioner of Patents* [1970] 62 C.P.R. 101 (Ex. Ct.)

6 There is some confusion on "professional skills", as many believe it to be associated with a method that cannot be reliably reproduced, i.e. it depends upon the skill of the professional performing it. This view originated with the editorial note accompanying the published *Lawson* (62 C.P.R. 101) decision. The reasoning of the editorial was that confusion arose when the Court deemed that requirements for a "manner of new manufacture" under English statutes equated the requirements for an "art, process, machine, manufacture, or composition of matter" under Canadian statutes, and imported reasoning based on English cases. The English "manner of new manufacture" covers the concepts of novelty, utility, and inventive step right along with statutory subject matter, while the requirement for a Canadian "art, process, machine, manufacture, or composition of matter" is considered separate from the requirements for novelty, utility, and inventive step. Thus, the editorial reasoned that professional skills indeed qualified as "arts" under s. 2, but lacked utility because the result following the practice of these arts, no matter how skillfully practiced, was not reproducible; the variables arising from the human element make success unpredictable. However, the Court itself did not once refer to reproducibility as an issue, nor did any of the cases that the Court quoted. Furthermore, the method for subdividing land as claimed (and described in the application) was as reproducible as any regularly patented "art" or "process". Although a method must indeed be reliably reproducible to be considered "useful" under s. 2, this requirement is completely separate from any professional skill considerations. Further evidence that this is the case can be found in such subsequent jurisprudence as *Tennessee Eastman* (62 C.P.R. 117 (Ex. Ct.)), *Shell* (67 C.P.R. (2d) 1), and *ICI* (9 C.P.R. (3d) 289).

7 Re: *Mobil Oil*, patent 1,254,297 (1988) 24 C.P.R. (3d) 571 at 576, "the applicant's system is useful and does not relate solely to calculations or algorithms"

8 *Schlumberger, supra* note 1 at 205-206; to apply the *ratio* of the Federal Court while still recognizing the formal categories of subject matter under s. 2 of the *Patent Act*, the Patent Office interprets the *Schlumberger* decision as stating that the claimed system was *statutory* subject matter under s. 2, but that it was not *patentable*, and that it was not an *invention*, i.e. it was an obvious mechanical embodiment of non-statutory subject matter.

9 Re: *Waldbaum* Patent Application No. 961,392 (1971) 5 C.P.R. (2d) 162 (PAB) at 167-169

10 *Visx v. Nidek* [1999] 3 C.P.R. (4th) 417 (F.C.T.D.) at 454, aff'd (2001) 16 C.P.R. (4th) 251 (F.C.A.); *Somerville Paper Boxes Ltd. v. Cormier* (1939) 2 C.P.R. 181 (Ex.Ct.) at 200-205, aff'd (1940) 2 C.P.R. 206 (S.C.C.); *Detroit Rubber Products v. Republic Rubber* (1927) Ex. C.R. 29 at 33-35, aff'd (1928) S.C.R. 578; *Canada v. Tessier* (1921), 21 Ex. C.R. 150; *Rolland v. Fournier* (1912) 4 D.L.R. 756 (Qc.K.B.) at 757-758

11 Re *Motorola Inc.* Patent Application No. 2,047,731 (1998) 86 C.P.R. (3d) 76 (PAB).

12 *Schlumberger, supra* note 1

13 *Visx, supra* note 10

14 Re Application 564,175 to *Atkins*, [1999] 6 C.P.R. (4th) 385 at 392

15 *Lawson, supra* note 5 at 110-111

Chapter 17
Biotechnology

17.01 Scope of this chapter

The purpose of this chapter is to highlight Office practice particularly as it pertains to applications concerning those diverse fields of research generically referred to as "biotechnology". In reading this chapter, it should be borne in mind that its purpose is to clarify, through elaboration, the application of the more generic teachings of other chapters to the particular issues encountered in biotechnology inventions.

Nothing in this chapter should be interpreted as providing exceptions to any practice of general applicability set out in any other chapter.

As a matter of administrative economy, certain principles of general applicability are, however, discussed in the present chapter. Inclusion of these sections (e.g. on utility, sufficiency, selection patents, etc.) is intended to clarify practice in these areas of particular importance to biotechnology prior to formal amendment of the relevant chapters to which they more appropriately belong.

Throughout this chapter the term "biomolecule" has been used, as a matter of convenience, to collectively describe nucleic acids, peptides, polypeptides, and proteins.

17.02 Subject-matter

As with every invention, in order to have standing under the *Patent Act* the matter of a biotechnology invention must fall within one of the five categories found within the section 2 definition of "invention", namely art, process, machine, manufacture, and composition of matter. Biotechnology is notable, however, in the number of jurisprudential interpretations whereby certain types of matter have been found not to fall within the scope of section 2.

This section discusses the relationship of several types of biotechnology to section 2 of the *Patent Act*.

17.02.01 Living matter

17.02.01*a* Higher and lower life forms

For the purposes of section 2 of the *Patent Act*, life forms have in view of jurisprudence been divided into lower life forms (statutory) and higher life forms (non-statutory).

In Commissioner's Decision *Re Application of Abitibi Co.* it was determined that life forms which are produced *en masse* as chemical compounds are prepared, in such large numbers that any measurable quantity will possess uniform properties and characteristics, are generally deemed to fall within the scope of section 2 as being either "manufactures" or "compositions of matter".[1]

In contrast, the Supreme Court ruled in *Harvard College v. Canada (Commissioner of Patents)* that higher life forms do not fall within the scope of section 2.[2]

The Patent Office considers the distinction between lower and higher life forms to be, in general, whether the life form is unicellular (lower) or multicellular (higher). The *Harvard* decision is interpreted by the Patent Office to mean that animals at any stage of development are not statutory matter for letters patent, and consequently that fertilized eggs and totipotent stem cells (which have the inherent ability to develop into animals) are included in the higher life form proscription.[3]

Embryonic, multipotent and pluripotent stem cells, which do not have the inherent ability to develop into an animal, are considered to be lower life forms. Where a claim to a cell could be reasonably understood in view of the description as encompassing within its scope a fertilized egg or totipotent stem cell, this matter should be expressly excluded by proviso to avoid a section 2 "higher life form" rejection.

Note that the fact that a claimed cell could form part of a higher life form does not mean that the claim to the cell should be equated to a claim to the higher life form. There is no need for a claim to a statutory cell to specify, in order to avoid a "higher life form" rejection, that the cell is "as found in the laboratory" or is "in isolated form".[4]

Lower life forms include: microscopic algae; unicellular fungi (including moulds and yeasts); bacteria; protozoa; viruses; transformed cell lines; hybridomas; and embryonic, pluripotent and multipotent stem cells.

Higher life forms include: animals, plants, seeds, mushrooms, fertilized eggs and totipotent stem cells.

Plant varieties that are distinct, uniform and stable may be protected under the *Plant*

Breeders' Rights Act, administered by the Canadian Food Inspection Agency.

Examples:

1. A bacterial cell culture deposited as ATCC 1234.
(statutory)

2. A hematopoietic stem cell derived from bone marrow, capable of giving rise to erythrocytes, neutrophils, granulocytes, lymphocytes or platelets, said cell bearing surface markers W, X and Y and obtained by a selective separation method using monoclonal antibody Z.
(statutory)

3. A plant transformed with an expression vector comprising the nucleic acid sequence depicted in SEQ ID NO: 1.
(non-statutory)

4. A plant cell transformed with an expression vector comprising the nucleic acid sequence depicted in SEQ ID NO: 1.
(statutory)

5. A plant propagation material produced by transformation of a plant cell with an expression vector comprising the nucleic acid sequence depicted in SEQ ID NO: 1.
(non-statutory)

6. A fertilized bovine ovum carrying an expression vector comprising the nucleic acid sequence depicted in SEQ ID NO: 1.
(non-statutory)

7. A cell transformed with an expression vector comprising the nucleic acid sequence depicted in SEQ ID NO: 1 provided said cell is not a fertilized egg cell or a totipotent stem cell.
(statutory)

Analysis: Examples 1, 2, and 4 are directed to cells that do not fall into the proscribed categories of fertilized eggs and totipotent stem cells. In contrast, examples 3, 5 and 6 are directed to proscribed higher life forms. In the case of example 5, this is because a “plant propagation material” includes seeds, plant cuttings, rhizomes and tubers of tuber-bearing plants. Example 7 is intended to reflect the situation where, in view of the description, it is clear that the cells of the invention include fertilized eggs and totipotent stem cells. To avoid a section 2 rejection, these non-statutory embodiments have been

expressly excluded by proviso.

17.02.01*b* Organs and tissues

Organs and tissues (whether of plant or animal origin) are generally not considered to be manufactures or compositions of matter for the purposes of section 2 of the *Patent Act*. Organs and tissues are in general created by complex processes, elements of which require no technical intervention, and do not consist of ingredients or substances that have been combined or mixed together.

Artificial organ-like or tissue-like structures, generated by technical intervention by combining various cellular and/or inert components, may be considered, on a case-by-case basis, to be manufactures or compositions of matter and therefore to be statutory subject-matter.

Examples:

1. A heart isolated from a pig and suitable for transplantation into a human, said pig heart being genetically engineered to express human cell surface antigens.
(non-statutory)

2. An artificial heart valve comprising polymeric scaffold material configured in the shape of a human heart valve, said scaffold material seeded with human myocytes derived from a human myogenic stem cell line.
(statutory)

3. Plant tissue genetically altered to express SEQ ID NO: 1.
(non-statutory)

17.02.02 Processes to produce life forms

The patentability of a method or process is independent of whether or not the product of the method or process is statutory. Processes to produce higher life forms, organs or tissues are not, therefore, objectionable on the grounds that they produce non-statutory products.

An especially important consideration in biotechnology, however, is the degree of technical intervention embodied in the claimed process. A process which occurs essentially according to nature, with no significant technical intervention by man, is not patentable.[5] Thus, for example, a process for producing a plant by traditional cross-breeding techniques is not patentable.

Processes which are considered to include significant technical intervention by man include: processes to produce a lower life form, a higher life form, an organ or a tissue through genetic transformation; processes for the *in vitro* culturing or manipulation of cells; processes to separate cells; and processes to generate mutants using a chemical or physical agent.

Examples:

1. A process to produce an insect resistant plant, comprising:
   (i) transforming a plant cell with an expression vector carrying a nucleic acid sequence encoding a protease inhibitor; and
   (ii) regenerating a plant from said transformed cell.

(acceptable)

2. A process for producing a tomato plant with reduced stature, comprising:
   (i) crossing tomato variety A with tomato variety B;
   (ii) selecting progeny of said cross that have reduced stature; and
   (iii) backcrossing the selected progeny with tomato variety A.

(not acceptable)

3. A process for producing artificial skin, comprising:
   (i) providing a perforated biocompatible membrane;
   (ii) seeding said membrane with epithelial cells; and
   (iii) cultivating said cells thereon *in vitro*.

(acceptable)

17.02.03 Medical and surgical methods

As mentioned in section 12.04.02, a method which provides a practical therapeutic benefit to a subject, even if this is not its primary or intended purpose, is considered to be a method of medical treatment and is therefore not patentable.[6] By way of examples, surgical, medical, dental and physiotherapeutic methods of treatment are non-statutory matter.

To be considered a method of medical treatment, the method should cure, prevent or ameliorate an ailment or pathological condition, or treat a physical abnormality or deformity such as by physiotherapy or surgery. Certain natural conditions such as ageing, pregnancy, baldness and wrinkles are not considered to be pathological, and methods to treat such conditions are therefore not proscribed.

Methods that involve performing surgery on the human or animal body are excluded, whether the effect of the surgery is therapeutic or not. Methods that involve the

excision of tissue, organ, or tumour samples from the body are considered to be forms of surgery, and are excluded regardless of their reproducibility. The removal of fluids from the body such as by needle or cannula is not of itself surgery.[7] A method to remove fluids may nevertheless be proscribed if it otherwise involves surgery, such as in the placement of a cannula or stent in the body,[8] or if it lacks utility, e.g. for not being reproducible.

Claims which do not involve a step of surgery or provide a practical therapeutic benefit do not form part of the method of surgery or medical treatment exclusion.[9] Thus, certain methods of diagnosing a disease or medical condition, whether practised *in vitro* or *in vivo*,[10] of treating an animal solely to derive an economic benefit,[11] or for achieving a cosmetic result may be patentable.

As mentioned in section 11.10.02, use claims are permitted but are scrutinized closely to ensure they do not equate to a medical or surgical method, for example by the inclusion of a medical or surgical step.

Similarly, a claim which recites a dosage regime, or a prescribed dosage amount, may be directed to a method of medical treatment since dosage regimes and prescribed dosage amounts fall within the purview of a medical professional.[12] However, dosage forms, pharmaceutical packages or kits, which may physically embody a dosage regime or prescribed dosage amount, are considered patentable subject matter.[13]

The removal of the medical aspect of a claim may render it acceptable. Inclusion of terms such as “cosmetic”, “diagnostic” or “non-medical” in a claim may be taken as disclaimers to medical methods provided the description contains adequate support for such terminology and provided the claim can reasonably be understood to be directed to a non-medical method the results of which cannot reasonably be said to produce a practical therapeutic effect.

Examples:

> 1. A method of preventing cervical cancer in a human subject, comprising administering a human papilloma virus peptide defined by SEQ ID NO: 1 to said subject.

Analysis: non-statutory, since the method is self-evidently a method of medical treatment.

> 2. A method of producing antibodies specific for the human papilloma virus peptide defined by SEQ ID NO: 1, comprising administering said peptide to a rodent.

Analysis: statutory, since rodents are not susceptible to human papilloma virus and do not derive any therapeutic benefit from the administration of the peptide.

3. A method of producing tenderized meat, comprising:
(i) injecting an animal with a proteolytic composition; and
(ii) slaughtering said animal after a period of time sufficient to allow for tenderization of the meat of said animal.

Analysis: statutory, since the animals do not obtain any therapeutic benefit from the method, and the method has clear industrial applicability.

4. A method for detecting and localizing a breast tumour, without medically treating said tumour, which method comprises the following steps:
(i) injecting a subject with an antibody X which has been labelled with a diagnostically effective amount of a radioactive isotope;
(ii) allowing said labelled antibody to localize at the site of the breast tumour; and
(iii) detecting the emission of radioactivity from said radioactive isotope thereby localizing the site of the breast tumour in said subject.

Analysis: Statutory because, in this case, there is a distinction between the concentration of the radioisotope-labelled antibody which is used for diagnosis and that which would provide a therapeutic effect. The proviso “without medically treating said tumour” therefore qualifies the amount of antibody used and restricts it to non-therapeutic concentrations.[14]

5. A method of analyzing a sample of breast tissue to diagnose breast cancer in a subject, comprising the following steps:
(i) homogenizing said sample in extraction buffer to yield soluble and insoluble fractions;
(ii) separating the soluble fraction from the insoluble fraction;
(iii) reacting the soluble fraction with [novel] antibody X; and
(iv) detecting specific binding of antibody X with antigen Y
wherein specific binding of antibody X to antigen Y indicates the presence of breast cancer.

Analysis: Statutory, since the method is clearly a diagnostic method and has been drafted in such a manner that any acts required to obtain the necessary sample of breast tissue do not form part of the claimed invention.

6. A method of detecting breast cancer in a subject comprising the following steps:

(i) obtaining a sample of breast tissue from a subject by [novel] needle biopsy conducted under the virtual guidance of a system which generates a three-dimensional image of a putative breast tumour which has been localized *in vivo* by immuno-radiography with an antibody reactive with antigen Y; and
(ii) detecting the presence of antigen Y in said sample,
wherein the presence of antigen Y at an amount exceeding 125 ng/g of tissue indicates the presence of breast cancer.

Analysis: non-statutory, since step (i) involves a step (a needle biopsy) which equates to surgery.

7. A method of screening for a potential drug for [human] disease X, comprising:
(i) administering a plurality of test compounds to [novel] mice which have been genetically engineered by insertion of human gene Y to mimic disease X;
(ii) evaluating the severity of disease progression in said mice in the presence and absence of each of the compounds; and
(iii) selecting compounds which slow disease progression as potentials for treating disease X.

Analysis: statutory, since a method wherein a disease is induced in an otherwise healthy subject is not a method of medical treatment, even if the so-induced disease is subsequently treated.

17.02.04 Bioinformatics

Biomolecules are chemical compounds, and claims to nucleic acids, polypeptides, proteins and peptides are therefore directed to statutory matter. Certain biomolecules, further, express information through their primary structure (i.e. their sequence).

The three-dimensional structure of a biomolecule is often of importance in understanding its biological activity and behaviour. A claim to a biomolecule, defining the molecule in terms of its atomic coordinates, is statutory. In contrast, a claim to the three-dimensional atomic coordinates that represent the shape of the biomolecule in space is not statutory. The coordinates themselves are simply information, which is non-statutory.

Note that the exclusion from patentability of information does not depend on whether or not the information has been recorded on a carrier, nor on the nature of the carrier.

A computer model of a biomolecule which relies on the structural information of the

biomolecule is not patentable, since the model itself equates to a graphical presentation of the underlying information. This exclusion extends to include generic computer systems and/or programs that have merely been configured to generate the model.

Computer models of biomolecules can be used in, for example, *in silico* screening methods. The mere presence of a computer model of a biomolecule in a method does not of itself render the method unpatentable.

Examples:

1. A polypeptide comprising the amino acid sequence depicted in SEQ ID NO: 1.
(statutory)

2. A protein comprising the atomic coordinates set out in figure 1.
(statutory)

3. A computer readable medium having recorded thereon the sequence set forth in SEQ ID NO: 1.
(not acceptable)

4. Atomic coordinates of protein X, said coordinates depicted in figure 1.
(non-statutory)

5. A method of obtaining inhibitors of protein X, comprising the steps of:
(i) generating a three-dimensional computer model of protein X using the atomic coordinates depicted in figure 1;
(ii) identifying the binding site of protein X using said model; and
(iii) electronically screening a library of compounds with defined spatial coordinates in order to identify compounds which are structurally complementary to the binding site of protein X; and
(iv) preparing complementary compounds as inhibitors of protein X.
(statutory)

17.03 Utility

Presuming that the claims define statutory subject-matter, section 2 of the *Patent Act* also requires that the matter of an invention be useful. As noted in *Consolboard v. MacMillan Bloedel*, a lack of utility exists if "the invention will not work, either in the sense that it will not operate at all or, more broadly, that it will not do what the specification promises that it will do".[15] Note that the Supreme Court indicates that the broader meaning of utility is "what the specification promises" the invention will do.

An invention must serve to carry out some useful objective and "cannot be a mere laboratory curiosity whose only claim to utility is as a starting material for further research".[16]

The Patent Appeal Board has similarly noted that, in order to be useful in the sense required by the *Patent Act*, an invention must be controllable and reproducible such that the objectives of the invention are predictably achieved.[17]

Although an invention need only have one use in order to be patentable, where several uses are promised each must be properly established. For example, if a composition is promised to be useful as a drug in treating a specific disease, it must be established that it is useful in the therapy of that disease. If, however, it is promised to be useful as a drug for treating many diseases, its utility in treating all the diseases must be established in order for the specification to comply with subsection 27(3) of the *Patent Act* [see 17.04].

To clarify the foregoing, a promised use is one which the inventors assert their invention does have. Comments in the description that are clearly speculative in nature (relating, e.g., to what the inventors believe but do not know, to uses the invention might have, etc.) are not promises of utility.

Examples:

An inventor unexpectedly discovers that novel compound X is useful in treating disease Y (a disease of the kidneys), and files an application for this invention. The inventor has not yet discovered the mode of action of their drug, but rather has provided exemplary data to support the use.

1. In the description, the inventor suggests that "compound X may also be useful in treating other diseases of the kidneys". Nothing in the description supports that the compound has any utility other than in treating disease Y.

Analysis: The compound can be claimed on the basis of its unexpected utility. The statement in the description suggesting other possible utilities is clearly not an assertion by the inventor that the compound *will* treat other diseases of the kidneys, and does not cause any confusion on that point. No objection should be raised to the description on that point.

2. In the description, the inventor states that "compound X is also useful in treating other diseases of the kidneys such as A, B and C".

Analysis: The statement in the description is a clear assertion that compound X will

treat the other diseases A, B and C. Unless the inventor is in a position to establish that it will in fact do so, the statement must be viewed as not correct and the description should be objected to under subsection 27(3) of the *Patent Act*. This is so whether the use of the compound to treat those diseases is claimed or not. If a claim is made to the use, the claim should also be objected to for being directed to subject-matter lacking in utility.

17.03.01 Establishing utility

The Supreme Court noted in *Apotex Inc. v. Wellcome Foundation Ltd.* that

> Utility is an essential part of the definition of an invention (*Patent Act*, s. 2). A policy of patent first and litigate later unfairly puts the onus of proof on the attackers to prove *invalidity*, without the patent owner's ever being put in a position to establish validity. Unless the inventor is in a position to establish utility as of the time the patent is applied for, on the basis of either demonstration or sound prediction, the Commissioner "by law" is required to refuse the patent (*Patent Act*, s. 40).[18]

Following 17.03, it is the invention's utility for achieving the objects indicated in the specification that the inventors must be in a position to establish.

Demonstrated utility pertains to embodiments of the invention that have been shown to actually work for the ends promised by the inventors. Utility can be demonstrated, for example, via working examples.

Soundly predicted utility pertains to embodiments of the invention which have not themselves been demonstrated to work for the ends promised by the inventors, but for which an appropriate basis exists upon which this utility can be predicted.

17.03.02 Sound prediction

In order for a prediction to be deemed to be "sound", it must meet the test set out in *Apotex*,[19] namely that there must be:

(i) a factual basis for the prediction;
(ii) an articulable and "sound" line of reasoning from which the desired result can be inferred from the factual basis; and
(iii) proper disclosure.

It is important to keep in mind that a "sound prediction" does not imply certainty. It is clear from the very term "prediction" that this is so. At the same time, the Supreme

Court was clear in *Apotex* that a patent monopoly is not to be granted in return for mere speculation. Consequently, in assessing whether or not utility has been established via sound prediction the emphasis is appropriately placed on "sound", and the question is whether a prediction is "sound" or "speculative".

17.03.02*a* Factual basis

Evaluating what will be a sufficient factual basis for a sound prediction must be conducted on a case-by-case basis, and will depend on such factors as:

(i) the scope of the claims;
(ii) the state of the art;
(iii) the nature of the invention and its predictability; and
(iv) the extent to which the applicant has explored the area claimed, for example by conducting experiments which provide factual support for the utility asserted.

It is clear from *Apotex* that, while the factual basis may be provided by way of examples, there is no requirement that this be so.

As was noted in the case of *Pfizer v. Apotex*, however, "[u]tility and sound prediction are questions of fact and must obviously be supported [...]".[20] Consequently, it seems clear that the term "factual" cannot be diluted to mean simple, unsubstantiated statements in the description promising that the invention will work.

As regards "prophetic examples", while these are not per se objectionable they are of limited value in providing support. A prophetic example is necessarily a statement of what might be, rather than what is, and is therefore not "factual".

17.03.02*b* Sound line of reasoning

In order to take a prediction from the realm of speculation and render it "sound", the applicant must be able to provide to the person skilled in the art an explanation of how it is that, on the basis of whatever facts have been identified, of the state of the art, and of whatever the inventors have brought to light in their researches, the entire matter of the claimed invention can be expected to provide the promised utility. Since a sound line of reasoning is directed to a person skilled in the art, those elements of the sound line of reasoning that would be self-evident to the person skilled in the art in view of their common general knowledge do not need to be explicitly disclosed in the application.

Although no inventor is required to understand why their invention works, this does not dilute the requirements for a sound prediction. If an inventor cannot articulate a line of

reasoning to soundly connect their factual support (e.g. their examples) to the remaining matter of their claims, they are not entitled to the full breadth of their claims.

It is not possible to provide exhaustive guidance on the types of reasoning which may be found to be "sound". This assessment depends on too many variables, and a factual basis which in one case may lead to a sound prediction may, in another case, be insufficient.

Knowledge of mechanisms of action and structure-activity relationships, however, are certainly compelling grounds upon which to base predictions. Similarly, in fields where *in vitro* tests are known to be predictive of *in vivo* activity, the *in vitro* tests could be sufficient for a sound prediction.

Where functional limitations appear in claims or are relied upon as the basis of a sound prediction, reference should be made to section 17.07.05.

17.03.02*c* Proper disclosure

The requirement for proper disclosure means that the person skilled in the art has to, through the specification interpreted in view of their common general knowledge, be provided with sufficient information to understand the basis of the sound prediction and to practice the entire scope of the claimed invention.[21]

Note that in making a proper disclosure, it is not necessary for the factual basis to be provided by way of examples. It is only necessary that the person skilled in the art would appreciate that the teachings of the description describe the necessary basis sufficiently, and that it is clear that the basis is factual. In certain cases, a reference to external, publicly-available data could suffice. Where the necessary factual basis is not publicly available as of the filing date it must be found within the description.

Determining whether or not the factual basis provided is sufficient must be assessed on a case-by-case basis in view of factors such as how developed the specific field is, how predictable inventions in that field are and the scope of the claims.

17.03.03 Relevant date

The date at which the applicant must be in a position to establish the utility of their invention is the filing date.[22] Consequently, the factual basis upon which either the demonstration or sound prediction is based must necessarily exist as of the filing date. Similarly, if a sound prediction is to be relied upon, the articulable and sound line of reasoning referred to in 17.03.02 must also exist as of the filing date.

Where an applicant is claiming priority, this claim is valid only insofar as the document

or documents upon which it is based are sufficient to establish the utility of the invention.

Although an applicant is entitled to include in the application as filed matter not present in the priority document(s), where this matter is necessary to establish the utility of any embodiments of the invention those embodiments do not benefit from the priority date.

17.03.04 Office actions relating to utility

When an examiner has reason to believe that an applicant is not in a position to establish the utility of their invention, when the manner whereby they have attempted to establish utility is defective or when there is evidence of inutility an objection will be raised. The nature of the objection will depend on the specific defect, and should serve to communicate the severity of the perceived deficiency.

If the perceived defect in a claim is one of scope (i.e. the invention has been claimed more broadly than the description appears to support, such that the entire claimed matter does not appear to have the promised utility), an objection can be presented under section 84 of the *Patent Rules* on the grounds of a lack of full support.

Such an objection could be made, for example, because an element of the invention (an "essential" element) has not been defined in the claim.

Similarly, where it does not appear that a sound prediction exists upon which the utility of the entire scope of the claim can be predicated, such that the scope of the claim consequently does not appear to be "fully supported" by the description, a rule 84 objection is appropriate.

Objections under rule 84 suggest that the examiner views the defect in the claim as one of scope, and that it is remediable through amendment. If an applicant declines to amend, however, they are effectively asserting that the entire scope of the claim is their invention and in a subsequent report an objection to lack of utility (under section 2 of the *Patent Act*) and lack of sufficiency of disclosure (under subsection 27(3) of the *Patent Act*) could be raised.

Section 2 of the *Patent Act* requires that an invention be useful. Where an examiner has reason to believe that the invention as claimed lacks utility, and the matter is not of the nature described above in relation to rule 84, a section 2 objection is raised.

In *Monsanto Co. v. Commissioner of Patents*, it was noted that inutility should only be alleged on the basis of evidence of inutility or of a reasoned argument as to why the applicant's sound prediction of utility is defective.[23] An objection contending an applicant's sound prediction is flawed should be supported by setting out sufficient facts

and reasoning to rebut the applicant's contention. The applicant must be given a sufficiently clear argument by the examiner that they are able to respond in an informed manner to those concerns raised by the examiner.

If the perceived defect is that the specification is, in view of the criteria set out in *Apotex*, insufficient to support a sound prediction, this should be clearly communicated. Where the defect is of the nature that no factual basis appears to exist or that no line of reasoning appears to exist (whether by explicit disclosure or in view of the common general knowledge of the person skilled in the art), the "reasoned argument" can be simply identifying these apparent omissions. In such cases, the objection to the claims under section 2 of the *Patent Act* should be accompanied by an objection to the description under subsection 27(3) of the *Patent Act*.

Conversely, even where an applicant has demonstrated and/or soundly predicted the utility of their invention, it may be the case that some basis exists (a factual basis such as data in the prior art, contravention of a law of science etc.) to contend inutility in regard to some embodiment of the invention. When such a basis can be identified, even as regards only one embodiment of a broad claim, the whole claim is objected to on the ground of a lack of utility.

It should be noted that evidence of inutility can be provided at any time. There is no requirement that such evidence existed as of the application's claim date.

Examples:

1. The description as filed includes a statement indicating that proteins having 80% sequence identity to SEQ ID NO: 1 are useful as anti-cancer compounds in humans. No other utilities are disclosed. The sequence in SEQ ID NO: 1 is that of a novel protein bearing only a slight structural similarity (< 20%) to a known protein, and the protein's functional activity is not disclosed. No test data of any kind is included in the description.

Claims:

1. A protein comprising the amino acid sequence depicted in SEQ ID NO: 1.

2. A protein which has at least 80% sequence identity to SEQ ID NO: 1.

3. A pharmaceutical composition comprising a protein as defined in claim 1 or 2 for use as an anti-cancer drug.

Analysis: The description does not contain any factual basis to support a sound prediction that the protein having the sequence provided in SEQ ID NO: 1 is useful as an anti-cancer compound. Given that the protein has only a slight structural similarity to

a known protein, extrinsic data does not seem to exist. Neither has any data supporting the promised utility been provided in the description. Consequently, the description appears to be insufficient and is objected to under subsection 27(3) of the *Patent Act*. Similarly, as it is not clear that the inventor is in a position to establish the utility of their invention for the promised purpose, the claims are objected to under section 2 of the *Patent Act*. It is up to the applicant to attempt to explain how they have met the utility requirement identified in *Apotex*.

2. The description as filed discloses an outer membrane protein [SEQ ID NO: 1] from a bacterium which is involved in a human disease X. The description provides pre-clinical data showing that the protein generates a protective immune response when used in a monkey model of disease X. It is understood from the description that the data from the monkey model is predictive of success in humans in view of the model's demonstrated success in predicting the activity of similar known antigens.

Claims:

1. A protein comprising the sequence defined by SEQ ID NO: 1.

2. A vaccine for use in protecting a human subject from disease X, comprising a protein having the sequence defined by SEQ ID NO: 1 and an adjuvant therefor.

Analysis: The description provides data demonstrating the activity of the protein for the promised purpose in monkeys. Extrinsic data, identified in the description, exists to support the utility of the monkey model for predicting human activity of similar antigens. A person skilled in the art would appreciate that this factual basis, properly disclosed in the description, is sufficient to allow the utility of the protein of claim 1 to be soundly predicted.

17.04 Sufficiency of the description

Closely related to the question of utility is that of sufficiency. Subsection 27(3) of the *Patent Act* requires (*inter alia*) that the description "correctly and fully describe the invention and its operation or use as contemplated by the inventor". Thorson P. summarized the requirements for sufficient specification in *Minerals Separation North American Corp. v. Noranda Mines, Ltd.*, and later described this "onus of disclosure" as "a heavy and exacting one".[24]

> The description must be correct; this means that it must be both clear and accurate. It must be free from avoidable obscurity or ambiguity and must be as simple and distinct as the difficulty of description permits. It must not contain erroneous or misleading statements calculated to deceive or mislead the persons to whom the specification is addressed and render it difficult for them without trial and experiment to comprehend in what

> manner the invention is to be performed. It must not, for example, direct the use of alternative methods of putting it into effect if only one is practicable, even if persons skilled in the art would be likely to choose the practicable method. The description of the invention must also be full; this means that its ambit must be defined, for nothing that has not been described may be validly claimed.[25]

As was noted in section 17.03, the description must contain sufficient information to support a sound prediction of the utility of the invention. Further, it must set out the invention such that a person skilled in the art can practice it having reference only to the description itself and to common general knowledge.

In *Consolboard*, Dickson J. noted that "the inventor must, in return for the grant of a patent, give to the public an adequate description of the invention with sufficiently complete and accurate details as will enable a workman, skilled in the art to which the invention relates, to construct or use that invention when the period of the monopoly has expired".[26] The description must be able to answer the questions "What is your invention?: How does it work?"[27] such that "when the period of the monopoly has expired the public will be able, having only the specification, to make the same successful use of the invention as the inventor could at the time of his application".[28]

A description sufficient to allow the public (in the form of a person skilled in the art) to practice the invention is said to be enabling. Since the person skilled in the art is the addressee of the description, it is not necessary for common knowledge to be comprehensively disclosed. A known assay technique does not need, for example, to be taught in full. Merely referring to this technique is sufficient for the person skilled in the art to know how to practice it.

When an examiner has reason to believe that a description is deficient for not having correctly and fully described the claimed invention, an objection is raised under subsection 27(3). This might be the case, for example, when a broad claim is supported only by its own verbatim language.

It is important to bear in mind that the specification must be sufficient to allow the full scope of the claimed invention to be practised without the need for the person skilled in the art to exercise their inventive ingenuity. If the person skilled in the art is called on to solve problems in such a manner that an inventive step would be present, the description is insufficient (and the attendant claims are unsupported).

17.04.01 Sequence listings

The following sections apply to applications filed on or after June 2, 2007. For applications filed prior to that date, the applicant may substitute the requirements of

sections 111 to 131 of the *Patent Rules* as they read immediately prior to the coming into force of the current rules for the requirements of section 111 of the *Patent Rules*. Similarly, the requirements of section 62 as it read immediately prior to the coming into force of the current rules may be substituted for the requirements of section 94 of the *Patent Rules*. Guidance on the application of previous versions of the *Patent Rules* can be had by reference to an earlier version of this manual.

17.04.01*a* Requirement for a sequence listing

In accordance with subsection 111(1) of the *Patent Rules*, if an application discloses "a nucleotide or amino acid sequence other than a sequence identified as forming a part of the prior art, the description shall contain, in respect of that sequence, a sequence listing in electronic form, and both the sequence listing and the electronic form shall comply with the PCT sequence listing standard".

When this is the case, the provision of said sequence listing is a requirement for completion of the application (whether or not the application is a PCT national phase application). Section 94 of the *Patent Rules* requires that the sequence listing be provided to the Office within the later of twelve-months from filing or three months of a notice requisitioning its provision. Where a sequence listing is requisitioned by the Office, the fee set out in item 2 of Schedule II is payable. To avoid the requirement to pay this fee, the applicant must provide any required sequence listing within "the applicable time". For an application other than a PCT national phase application, the applicable time is 15 months from the earliest priority date or, where no priority is claimed, 15 months from the filing date. For a PCT national phase application, the applicable time is 3 months from payment of the requisite fees for national entry and provision of a copy of the application and/or a translation of the application if applicable (i.e. the requirements of subsections 58(1) and 58(2) of the *Patent Rules*).

When a sequence listing submitted in accordance with subsection 111(1) of the *Patent Rules* is of record in the Office, it is not permissible for a paper copy of the sequence listing to be of record. Applicants will be requisitioned to withdraw any paper copy of a sequence listing for which a PCT sequence listing standard-compliant (see 17.04.01*b*, below) electronic sequence listing has been made of record.

17.04.01*b* The PCT sequence listing standard

The term "PCT sequence listing standard" refers to the *Standard for the Presentation of Nucleotide and Amino Acid Sequence Listings in International Patent Applications Under the PCT*. This standard is provided in annex C of the *Administrative Instructions under the PCT* and is available at http://www.wipo.int/pct/en/texts/pdf/ai_5.pdf

17.04.01*c* Addition of a sequence listing to an application

In accordance with subsection 111(2) of the *Patent Rules*, if a sequence listing is added to an application originally filed without a sequence listing, "the applicant shall file a statement to the effect that the listing does not go beyond the disclosure in the application as filed".

17.04.01*d* Amendment of a sequence listing

In accordance with subsection 111(3) of the *Patent Rules*, if an application as filed contains a sequence listing either in paper form or in an electronic form that does not comply with the PCT sequence listing standard and the applicant replaces the non-compliant sequence listing "by a sequence listing in electronic form that does comply with that standard, the applicant shall file a statement to the effect that the replacement listing does not go beyond the disclosure in the application as filed".

17.04.01*e* Correction of a sequence listing

If a sequence listing is found to contain errors, any correction of the listing must comply with the requirements of subsection 38.2(2) of the *Patent Act*. That is, no new matter may be added to the specification or drawings as originally filed and any correction made to a sequence listing must be reasonably inferrable from the specification or drawings as filed. Where the correct sequence could only be determined by, for example, re-sequencing a sample, the correction is not reasonably to be inferred.

17.04.01*f* Identification of a sequence listing

In accordance with subsection 86(3) of the *Patent Rules*, the claims may refer to sequences represented by sequence listings by the sequence identifier and preceded by "SEQ ID NO:". The sequence identifier can simply be an arabic numeral, such that the first sequence identified in the description could be identified as SEQ ID NO: 1, the second as SEQ ID NO: 2, etc.

17.04.01*g* Usage of variable symbols in a sequence listing

The use of the symbols "n" (or "N") and "Xaa" to define "unknown or modified" bases and amino acids, respectively, is discussed in paragraphs 10 and 18 of the PCT sequence listing standard. When these symbols are used in a sequence listing, they can represent only a single residue (nucleotide or amino acid, respectively) at a specific position in the sequence.

The Office considers that the residues represented by the symbols "n" (or "N") and

"Xaa" may be defined in the "Features" section as being either present or absent, and that these symbols may also be used to define that a standard nucleotide or amino acid residue is either present or absent. Similarly, these symbols can be used, through the definitions given in the "Features" section, to represent alternate residues at a given position.

Note that since such symbols represent only a single residue, a sequence of variable length must be presented by using a sufficient number of discrete symbols to represent the maximum length of the sequence. Symbols used in such a presentation may then be qualified in the "Features" section to be either present or absent.

The foregoing discussion relates only to the manner in which the foregoing symbols may be used as a matter of nomenclature. During examination, an examiner must consider whether or not the use of such symbols is objectionable, for example on the grounds of lack of clarity or support.

17.04.02 Deposits of biological material

Section 38.1(1) of the *Patent Act* provides that:

> *Where a specification refers to a deposit of biological material and the deposit is in accordance with the regulations, the deposit shall be considered part of the specification and, to the extent that subsection 27(3) cannot otherwise reasonably be complied with, the deposit shall be taken into consideration in determining whether the specification complies with that subsection.*

Section 38.1(2) of the *Patent Act provides that:*

> *For greater certainty, a reference to a deposit of biological material in a specification does not create a presumption that the deposit is required for the purpose of complying with subsection 27(3).*

Therefore, it can be seen from the language of the *Act* that a deposit may be made whether or not it is necessary to enable the invention. Where the invention cannot be enabled [see 17.04] in the absence of access to a biological material, however, the deposit is a necessary element to make the description sufficient unless the required material is publicly known and reliably available to the person skilled in the art. A biological material is considered to be reliably available if it can be obtained commercially or can be reproducibly prepared or isolated from available materials using established procedures and without undue experimentation.

The presence of a biological deposit does not change the requirements of subsection 27(3) of the *Patent Act* except, as provided by subsection 38.1(1) of the *Patent Act*, to the extent subsection 27(3) cannot otherwise reasonably be complied with. The fact

that a biological deposit has been made does not of itself mean that an invention has been adequately described.[29] A claim to a desired product does not merit protection simply because reference is made to where the product can be found.

Whenever possible, it is preferable that both methods of disclosure should be used.[30]

For example, consider an application that claims an uncharacterized gene by reference to a deposit of a micro-organism containing the gene. The deposit is not a substitute for a full and complete description of the gene itself and, in view of subsection 38.1(1) of the *Patent Act* (vide supra), would not of itself meet the requirements of subsection 27(3) of the *Patent Act*.

Sections 103 to 110 of the *Patent Rules* regulate deposits of biological material. The practical aspects of biological deposits covered by these rules are dealt with in Appendix 1 of this chapter.

17.04.03 Inclusion of examples

Given the complexity of some biotechnology inventions, it is not always feasible for an applicant to provide a complete description of their invention by words alone. This is acknowledged, e.g., by the presence of section 38.1 of the *Patent Act*.

Although there is no absolute requirement under subsection 27(3) of the *Patent Act* for an application to include examples, the practical effect of the complex nature of some biotechnology inventions is that it may not be possible for an applicant to fulfill the "what is your invention" [see 17.04] aspect of proper disclosure without exemplary support for their invention. Whether or not exemplary support is necessary must be assessed on a case-by-case basis, in view of the completeness of the remainder of the written description.[31]

Paragraph 80(1)(f) of the *Patent Rules* notes that the description of an invention must

> *set forth at least one mode contemplated by the inventor for carrying out the invention in terms of examples, where appropriate, and with reference to the drawings, if any...*

The use of the wording "where appropriate" in this rule reflects that an exemplary basis may or may not be necessary depending on the case at hand. The language "where appropriate" does not merely mean "if the applicant deems it appropriate", and does not provide any exception to the requirements of subsection 27(3) of the *Patent Act*.

17.05 Novelty

As with any invention, a biotechnology invention must be new (novel). Generally, whether an invention is novel or not is answered by asking whether or not it is known in the art (i.e. anticipated).

For a prior disclosure to be anticipatory, it must describe the invention being claimed and provide an enabling disclosure of that invention. An invention is considered to have been previously described where the subject-matter previously disclosed would, if performed, infringe the later claim. A prior disclosure is considered to be enabling for the purposes of anticipation where the person skilled in the art, if necessary through trial and error experimentation that is neither inventive nor an undue burden, can operate it successfully.[32]

The various tests articulated in the cases *Reeves Bros. v. Toronto Quilting*[33] and *Beloit Canada Ltd. v. Valmet* Oy[34] deal with the aspect of prior disclosure, and their guidance in terms of a requirement for an "exact description" of the same invention must be understood in this context.[35] Note that in *Diversified Products v. Tye-Sil*, the Court discussed the tests provided in both *Reeves Bros.* and *Beloit* with no suggestion that the various tests found in the two cases are mutually inconsistent.[36] It can therefore be concluded that a claim lacks novelty if any one embodiment falling within its scope is described according to the standard expressed in *Beloit*.

Thus, the anticipatory disclosure must provide all the information necessary, for the purposes of practical utility, to lead the person skilled in the art directly and without difficulty to at least one embodiment of the invention in suit. Further, the prior disclosure must be enabling of the embodiment which is allegedly anticipated.[37]

By way of non-limiting examples, it is noted that a claim to a composition of matter is anticipated if a composition of matter falling within that claim has already been made or, where one such composition of matter has not been made, but nonetheless has been described and enabled and its actual utility soundly predicted.

17.05.01 Biological materials

Recall from 17.04.02 that a description may be considered not to be sufficient unless it provides access, via a deposit made as of the filing date, to biological material associated with the invention. This requirement extends to an allegedly anticipatory disclosure.

Consequently, if the disclosure found in the prior art requires, in order for the invention described therein to be practised, access to a biological material, the biological material

must necessarily have been reliably available to the person skilled in the art in order for the document to be anticipatory. To be reliably available it must be either commercially available, be reproducibly preparable or isolable from available materials using established procedures and without undue experimentation, or be accessible via a deposit of biological material.

Examples:

1. Prior art journal article D1 published by the applicant discloses the discovery of a specific hybridoma (hybridoma X) that produces a monoclonal antibody (antibody Y) which is specific for antigen Z. There is no indication in the journal article that a deposit of hybridoma X has been made.

Claims:

1. Hybridoma X deposited as ATCC 1234 which produces antibody Y.

2. A hybridoma which produces a monoclonal antibody capable of binding antigen Z.

Analysis: claim 2 broadly defines “a hybridoma”, and the prior art does in fact disclose such a hybridoma. Claim 2 lacks novelty. Claim 1, in contrast, defines specifically hybridoma X. The person skilled in the art could not reliably obtain hybridoma X simply by following the methodology disclosed in the article (i.e. they could get a hybridoma which would produce a monoclonal antibody for antigen Z, but not necessarily hybridoma X). To reliably produce X they would need access to a deposit of X. Without this deposit, the prior art article is not anticipatory of claim 1. (N.B. There remains, of course, the question of whether or not claim 1 has an inventive step.)

2. Prior art journal article D1 describes a plasmid constructed from various known genetic elements using known methods. The genetic elements were also freely available to the public. The plasmid is termed “plasmid X” but has not been deposited.

Claim:

1. Plasmid Y [which has the very same features and arrangement as plasmid X] deposited as ATCC 1235.

Analysis: the claim is anticipated since the claimed plasmid is indistinguishable from the known plasmid X and since a person of skill in the art would be able to construct plasmid Y using known, freely available, genetic elements and methods.

17.05.02 Inherent or implicit disclosure

An enabling disclosure is considered to disclose all the inherent properties of the invention. Old and known subject matter is not rendered novel by including a limitation which is inherently or implicitly found in the prior art.[38]

For example, consider that a prior art document discloses a chemical compound X and how to make it, and establishes that compound X is useful in treating disease Y. Where subsequent research uncovers the mechanism of action of the compound, a claim to the use of compound X to treat disease Y via the newly discovered mechanism is not novel. Compound X implicitly treated disease Y via the mechanism, and the discovery has not led to a new use for the known compound.[39]

Where anticipation is predicated on the presence of an inherent or implicit feature, it is necessary to clearly explain the grounds on which the presence of that feature in the matter of the prior disclosure is concluded. Where such a conclusion is supported by secondary references, the date of publication of these references is not important.

Examples:

1. A prior art document discloses a prepared cosmid whose DNA sequence record contains a sub-sequence identical to SEQ ID NO: 1. The record does not disclose any information on the coding capabilities of the cosmid.

Claim:

1. A nucleic acid molecule comprising SEQ ID NO: 1 which encodes an [novel] enzyme having protease activity.

Analysis: the claim is anticipated. The use of the term “comprising” indicates the claim is open-ended and encompasses any nucleic acid molecule, including a cosmid, which minimally contains the structure depicted in SEQ ID NO: 1. Since coding capability inevitably follows from the structure of the sequence itself, this functional feature does not impart novelty over the prior art. Effectively, the claim is asserting that every nucleic acid having the defined structure will encode an enzyme having protease activity. The prior disclosure of the cosmid is anticipatory. A claim to a nucleic acid molecule consisting solely of the sequence defined in SEQ ID NO: 1 would, however, not be anticipated.

2. A prior art journal publication discloses the amino acid sequence (SEQ ID NO: 1) of a naturally occurring protein.

Claim:

1. A protein comprising the primary amino acid sequence identified in SEQ ID

NO: 1 and having a three-dimensional structure defined by the newly discovered atomic coordinates depicted in figure 1.

Analysis: the claim is anticipated since the claimed protein appears to be identical to the old and known protein disclosed in the prior art and since the limitation found in the claim which identifies the three-dimensional structure of the protein is something which has been implicitly disclosed. Although the atomic coordinates of the protein may represent something that is newly disclosed, this information is not regarded as something which distinguishes the claimed protein *per se* over the prior art.

17.05.03 Products-by-process

A product may be defined in terms of the process by which it is prepared. It must always be remembered that product-by-process claims are, simply, directed to products. In relation to novelty, therefore, it must be evident that all the products falling within the scope of a product-by-process claim are new.

A known product cannot be patented merely because it has been prepared by a new process.[40] This is so regardless of the nature of the process. Where a process inevitably results in a product having distinct technical features, however, novelty exists.

A claim to, e.g., "protein X prepared by recombinant means" lacks novelty where protein X is known and is indistinguishable from the protein defined in the claim. If the recombinant process to prepare a protein similar to protein X, however, consistently results in the presence of novel post-translational structural features, a claim to "protein X' prepared by recombinant means" would be novel.

17.06 Ingenuity

As with any invention, a biotechnology invention must comply with the requirements of section 28.3 of the *Patent Act*. The invention as claimed must consequently not be obvious or, equivalently, must be the result of inventive ingenuity.[41] It has been noted by the courts that the addition to the *Patent Act* of section 28.3 merely codified what was already accepted, and has not changed the inherent requirement that an invention be the result of ingenuity.[42] Thus, the courts have noted that "obviousness is an attack on a patent based on its lack of inventiveness"[43] and "[t]he courts have chosen to define 'lack of inventiveness' rather than 'inventiveness' and have called it 'obviousness'".[44]

To meet the requirement of section 28.3 of the *Patent Act* there must, in view of the state of the art and the common general knowledge as of the claim date, be present that "characteristic or quality" (i.e. a "scintilla of inventiveness") which serves to elevate the matter of the claims from mere workshop improvement to real invention.[45]

When comparing the matter of the claims to teachings found in the prior art, it is usual to approach the question by asking whether or not the prior art renders the claimed invention obvious. It has been noted that no single test for obviousness exists that can be appropriately applied to all inventions.[46] Rather, several factors should be considered, including the level of common general knowledge of the person skilled in the art, the climate in the relevant field at the time the alleged invention was made, and whether there was motivation in existence at that time to solve a recognized problem.[47] It can also be relevant to consider whether certain matter would have been "obvious to try" at the date of invention, but this factor must be approached cautiously, and considered in view of whether the person skilled in the art would have both the motivation to perform certain routine experiments and a reasonable expectation of success in making these inquiries.[48]

An invention can be found to be obvious if the question set out in *Beloit*, when asked in the proper context, is answered in the affirmative. This question may be paraphrased as: would a person skilled in the art, in view of the state of the art and their common general knowledge as of the claim date, have come directly and without difficulty to the solution taught by the patent.[49] The aspect of "directly and without difficulty", in view of the more recent guidance set out in the previous paragraph, must not be interpreted too narrowly.

17.06.01 Nucleic acids encoding amino acid sequences

If given the amino acid sequence of a polypeptide, the entire class of nucleic acids encoding it can be generated through simple deduction; *i.e.,* by using the genetic code to back-translate from the amino acid sequence. Therefore, a generic claim to a nucleic acid encoding a known amino acid sequence is considered obvious.

The opposite is also considered obvious. An amino acid sequence encoded by a known nucleic acid can be directly derived through the translation of the known coding nucleic acid provided the correct reading frame has been identified or is obvious.

Given that the class of nucleic acids encoding any particular polypeptide is astronomically large, the identification of a species of the class which has unexpected or advantageous properties can be inventive. The test for a proper selection (see 17.07) should be applied.

Example:

1. A prior art journal article D1 discloses the amino acid sequence (SEQ ID NO: 1) of a 30 amino acid long mammalian peptide whose sequence was derived through Edman degradation. There are no indications that recombinant

techniques were used nor is there an explicit disclosure of a nucleic acid molecule which encodes the peptide. A review article D2 discusses methods and codon usage tables that may be used in order to achieve enhanced expression of heterologous genes in plant tissues.

Claims:

1. A nucleic acid encoding the peptide identified by SEQ ID NO: 1.

2. A nucleic acid which has been optimized for expression in plant tissue and which encodes the peptide identified by SEQ ID NO: 1.

3. A nucleic acid comprising the sequence identified by SEQ ID NO: 2 which has been optimized for expression in plant tissue and which encodes the peptide identified by SEQ ID NO: 1.

Analysis: consider that the application properly discloses that the sequence identified by SEQ ID NO: 2 is particularly advantageous for use in encoding the peptide identified by SEQ ID NO: 1. Consider that it would not be obvious to the person skilled in the art that this would be so.

Claim 1 is obvious in view of D1 alone for two reasons. Firstly, the claim does not refer to any nucleic acid in particular and merely reflects the general idea of having a nucleic acid molecule which is capable of encoding the peptide; an idea that a person of skill in the art would readily appreciate in view of D1. Secondly, the prior art provides the amino acid sequence of the peptide making it a simple matter of deduction for the person of skill in the art to generate a nucleic acid sequence capable of encoding the peptide.

Claim 2 is obvious in view of D1 in combination with D2. The claim does not refer to any nucleic acid in particular and again merely reflects, albeit in a somewhat more restricted sense, the general idea of having a nucleic acid molecule which has been optimized for expression in plant tissue; an idea that a person of skill in the art would readily be able to put into practical effect by deducing an appropriate encoding sequence from D1 in view of the more specific guidance offered by D2.

Claim 3 is not obvious since neither reference discloses nor suggests the particular sequence referred to in the claim and since, based on the description, the sequence appears to have unexpected properties. The claim represents the selection of nucleic acids having a particular sequence from amongst the genus of all possible nucleic acids encoding the peptide and from amongst the subgenus of all possible nucleic acids employing plant optimized codons.

17.06.02 Process claims

A claim to a generic "process for cloning or obtaining a gene encoding a known polypeptide" (of unknown sequence) which relies on generally known methods is considered obvious unless the gene is novel and patentable and the claim contains an explicit indication of its structure.

17.07 Claims

In claiming biotechnology inventions, many different approaches can be taken. Here again, there are no special rules with respect to biotechnology. A claim to a biotechnology invention must consequently be of definite and unambiguous scope,[50] must serve to distinguish the claimed invention from the prior art, must explicitly define all those features necessary to enable the person skilled in the art to realize the promised utility, and must be fully supported by the description. The claims, individually and collectively, must be clear and concise and leave the reader in no doubt as to the nature of the invention. These, collectively, are the usual requirements demanded by subsection 27(4) of the *Patent Act* and section 84 of the *Patent Rules*.

17.07.01 Selections

Many inventions are predicated on the selection from a genus of one or several species. The criteria for a proper selection were clearly stated by Maughan J. in the UK case *I.G. Farbenindustrie A.G.'s Patents*,[51] and have been repeatedly cited with approbation in Canadian jurisprudence.[52]

To be a proper selection, the matter of the selection must be:

(i) based upon a substantial advantage; and
(ii) the whole of the selection must possess the advantage; and
(iii) the advantage must be in respect of a special quality or character common to the whole of the selection.

An important consideration that must be borne in mind is that while embodiments being selected have been disclosed in some generic manner in the prior art, no embodiment falling within the scope of the claim can actually have been prepared. Per Maughan J., "[i]t must be remembered, of course, that the selected compounds have not been made before, or the patent would fail for want of novelty".[53]

A selection, therefore, is based entirely on the recognition by a later inventor of an advantage present in some subset of an invention more broadly disclosed in the prior art. To be novel, the selection cannot encompass any embodiments that have been previously practiced. To be inventive, the entire matter of the selection must possess

the advantage. To be a single inventive selection, the advantage must be in respect of a special quality or character common to the whole of the selection.

The utility of a selection depends on the presence of the "substantial advantage", and it is this utility that the applicant must be in a position to establish by demonstration or sound prediction. Note that the "substantial advantage" may be a disadvantage that is avoided by the selection.[54]

Example:

1. Prior art patent D1 discloses the utility of a known genus of polypeptides (genus A) for a new medicinal use (treating condition Y).

Claim:

1. The use of polypeptide A1 for use in treating condition Y.

Analysis: consider that polypeptide A1 is a member of genus A which was not exemplified in D1. Consequently, its therapeutic activity had not previously been conclusively demonstrated. Consider that the application in question does not provide any exemplary data that polypeptide A1 has properties superior to those of other members of the genus in general. The application provides prophetic examples suggesting polypeptide A1 may be a suitable (even advantageous) alternative to the specific polypeptides mentioned in D1 as examples of genus A. As the prophetic examples suggest the utility is being predicted, it appears there is no factual basis upon which the selection can be fairly based. The matter of the claim, consequently, does not appear to be the result of an inventive step. Rather, it is an arbitrary selection of one of a group of equivalents known in general for the treatment of condition Y.

17.07.02 Provisos

Applicants will sometimes exclude certain embodiments from their claims, usually to avoid inoperative embodiments, known prior art disclosures, or their own copending applications.

While the use of provisos is acceptable, the effect of the proviso on the application as a whole must be carefully considered. Note that in the present discussion, the term "proviso" has been used as a generic term to refer to the exclusion of matter from a claim by negative limitation. Whether the proviso is indicated using language such as "provided that A is not B", "wherein X is not Y", "any <generic element> except Q", or some other form is not material.

The effect of a proviso on a claim will depend on the specific circumstances of each application, and should be carefully considered. A proviso not disclosed in the

application as filed, for example, has the potential of introducing subject-matter not reasonably to be inferred from the specification as originally filed, and consequently as being contrary to subsection 38.2(2) of the *Patent Act*. No presumption exists that the introduction of a proviso not disclosed at filing is automatically the addition of new subject-matter.

17.07.02*a* Provisos and utility

Where a proviso has been presented to avoid inoperative subject-matter, the basis upon which the utility of the remaining matter of the claim has been established must be reconsidered. Since utility will often be based on a sound prediction, a proviso to exclude a known inoperative embodiment requires that the line of reasoning upon which the utility of the remaining matter of the claim is based be reassessed.

17.07.02*b* Provisos and unity

In certain cases, the presence of a proviso will call into question whether the remaining matter of the claims defines a single invention. For example, if a claim defines the use of NSAIDs in combination with another drug to treat some disease, but it excludes ASA, a question arises as to the common general inventive feature upon which the unity of invention is based. It is no longer the use of NSAIDs, since ASA is excluded. This feature is no longer "common" to the invention. It is not the use of a combination therapy to treat a disease, since unity cannot be predicated on a desired result to be achieved, but must rather be resident in the means of achieving the result.

17.07.02*c* Provisos and non-essential elements

The situations referred to in the previous sections generally relate to the use of provisos to exclude embodiments that are members of broadly disclosed essential features (e.g. ASA from the essential element "NSAIDs"). Where a proviso is used to exclude in an arbitrary fashion some non-essential feature, this approach will generally not be sufficient to establish novelty or inventive step over the prior art.

Examples:

1. A prior art journal publication D1 discloses murine and bovine growth factor polypeptides. The polypeptides are 85% and 87% identical over their entire length to a human growth factor (SEQ ID NO: 1) disclosed in the application in question.

Claim:

1. A growth polypeptide comprising at least 80% identity to SEQ ID NO: 1,

provided that said polypeptide is neither the polypeptide depicted below in (a) nor the polypeptide depicted below in (b):

(a) [murine growth factor amino acid sequence];
(b) [bovine growth factor amino acid sequence].

Analysis: consider that the proviso was introduced after D1 was cited against the claim. The addition of the proviso does not serve to render the claim patentable over the prior art. D1 calls into question whether the matter of the post-proviso claim is based on a common inventive step in regards to the state of the art. In view of D1, it would be obvious that many polypeptides having sequences within the claimed range would provide the same utility.

2. Prior art application D1 discloses compound X as a useful drug in the therapy of disease Y.

Claim:

1. A compound having <structural element A> for use in treating disease Y, provided said compound is not compound X.

Analysis: consider that at the time D1 was filed, the applicant did not know what structure led to compound X's activity. They have now discovered through further research what structure leads to the drug's activity, and wish to claim other drugs related to X via this structure which are useful for the same purpose. The proviso is acceptable in this instance, because the invention of claim 1 is not rendered obvious by D1 and the disclaimer is not arbitrary in nature.

17.07.03 Reach-through claims

As noted in section 17.04, "nothing that has not been described may be validly claimed". A claim to subject matter which extends beyond the invention adequately described is sometimes termed a "reach-through claim". Reach-through claims typically define products that will be useful for some purpose, but which have not yet been identified.

For example, if an applicant discloses a method for screening drugs for use in treating a certain disease, a claim to useful drugs identified by the method would be a reach-through claim. The claim "reaches through" the method to define the useful products it might identify. Since such products have not yet been identified, they cannot be properly described per se. Similarly, an invention directed to a method of identifying receptor ligand antagonists may not be legitimately extended to generally claim all antagonists which might eventually be discovered through the use of the inventive method.

In the case of a nucleic acid molecule encoding a protein, the provision of a partial amino acid sequence of the protein is not taken as an adequate description of a nucleic acid molecule which is capable of encoding the entire protein.[55]

17.07.04 Functional limitations

In certain cases, applicants may wish to define an invention using functional language. The use of functional language is not per se objectionable. Such language is generally used to provide breadth, however, and must be carefully considered from the perspective of proper support.

Functional limitations must always be considered from the perspective of the person skilled in the art, and the question to be asked is: "can the person skilled in the art practice the full breadth of the claim without recourse to inventive ingenuity?". If the means to effect the defined function are common general knowledge, the functional limitation is unlikely to be objectionable. Where few or only one means is known to effect the function, however, the functional term exceeds the appropriate scope of the invention by seeking to monopolize speculative embodiments the inventors could not be considered to have adequately described.

To paraphrase *Free World Trust v. Électro Santé Inc.*, "it is not legitimate to invent a particular composition that grows hair on bald men and thereafter claim all compositions that grow hair on bald men".[56] Thus, a claim to "a composition comprising a hair-growth activating compound in a pharmaceutically acceptable carrier", where only compound X is known to provide the function, would be too broad. The limitation "hair-growth activating" is a functional limitation to the scope of the compounds found in the composition, but does not serve to make the scope of the claim clear to the person skilled in the art. Identifying all the compounds that would have this activity would require extensive inventive experimentation.

In contrast, where it has been discovered that the combination of a particular drug with any NSAID leads to unexpected advantages, the functional limitation "non-steroidal anti-inflammatory" on the scope of the second component of the composition would not be problematic. The scope of the term "NSAID" would be immediately apparent to the person skilled in the art.

Example:

1. An application describes a novel polypeptide [SEQ ID NO. 1] which is shown to arrest the growth of breast cancer cells *in vitro*.

Claim:

1. A pharmaceutical composition for use in the treatment of breast cancer

comprising a polypeptide capable of arresting the growth of breast cancer cells and a pharmaceutically acceptable carrier.

Analysis: the claim is overly-broad since the claim fails to include structural features of the "novel polypeptide" and since the description describes with particularity only one polypeptide with the desired property, being that having the structure depicted in SEQ ID NO. 1. Thus, in a first report an objection under section 84 of the *Patent Rules* is warranted, as the claim defines more than the description supports. Note that no related objection is made in this report under subsection 27(3) of the *Patent Act* as long as the description correctly and fully describes the invention in regards to the "novel polypeptide". Note that in a further report, this objection might need to be raised under section 2 of the *Patent Act* with an accompanying objection under subsection 27(3), for example if the applicant argues that the presence of literal support for claim 1 is sufficient to enable the full scope of the claim [see sections 17.03.04 and 17.04].

17.07.05 Scope of claims

In order to fulfill their public notice function, a claim must define the invention in such a manner that the person skilled in the art will understand where they may and may not go without infringing.

As Lord Loreburn noted in *Natural Kinematograph Co. v. Bioschemes Ltd.*, "[t]he patent system is designed to advance research and development and to encourage broader economic activity. Achievement of these objectives is undermined however if competitors fear to tread in the vicinity of the patent because its scope lacks a reasonable measure of precision and certainty. A patent of uncertain scope becomes a public nuisance".[57]

An objection to a claim for ambiguity or lack of clarity as to its limits (indefiniteness) is made under subsection 27(4) of the *Patent Act*. A claim is not indefinite simply because it is broad, but rather where the precise limits of the claim are uncertain. A claim that relies, for example, on the use of "a polyol" is not indefinite since the person skilled in the art can immediately appreciate the scope of that term. A claim relying on "a polyol capable of <performing some function>", however, is indefinite if the person skilled in the art would not know, or be able to reasonably predict or determine, what polyols fall within the scope of the claim.

17.07.05*a* Recourse to the description

During examination, the language of the claims is interpreted by giving each term its plain and usual meaning in the art to which the invention pertains unless it is clear from the description that a term in the claims is to be given a different meaning.

The courts have acknowledged that an applicant can act as their own lexicographer, by specifying in their description that certain terms will have particular meanings for the purposes of the application. Whenever an applicant is desiring to act as their own lexicographer, however, it is incumbent on them to make this clear from the language of the description. Further, in so acting it is not proper to give a term having a well-known meaning a definition which is contrary to this meaning. In such cases, uncertainty exists as to whether the term, when found in a claim, is intended to have its usual or distorted meaning.

For example, teaching that the term "up" means "down" for the purposes of the invention is only liable to cause confusion and serves no purpose. Such a definition, when made in the description, would be objected to under subsection 27(3) of the *Patent Act*. Further, the claim containing the term "up" is objected to under subsection 27(4) of the *Patent Act* for the lack of clarity as to whether the term is intended to actually mean "up", or rather to mean "down" following the teachings of the description. Similarly, teaching that the symbol "P" indicates nitrogen atoms is misleading; the symbol is recognized in chemistry as designating phosphorus, and could readily be replaced by the appropriate symbol "N" to designate nitrogen. In contrast, teaching that the term "protein", for the purposes of the invention, has some specific but sensible meaning could be acceptable, especially where this avoids having to repeatedly include a lengthy definition in the claims.

Whenever inclusion of the definition found in the description into the claims would not be detrimental to the clarity and conciseness of the claim, however, this should be done.

It is worth noting that the courts, in construing the claims of a patent, are dealing with a document whose language is fixed. Any deficiencies in the language of the claim can only be remedied by construing the claim in "an informed and purposive way". During examination, in contrast, the language of the claims may be amended so as to remove ambiguity and maximize their usefulness in serving their public notice function of defining the extent of the monopoly sought.[58]

Where a defect of clarity has been noted by an examiner in the language of a claim, it will generally be maintained in the face of a response arguing that the courts could, with the assistance of expert testimony, arrive at some construction thereof. The purpose of the claims is to serve a public notice function, and "nothing can excuse the use of ambiguous language when simple language can easily be employed".[59]

17.07.05*b* Defining biomolecules by structure

According to section 11.08, a product may be defined in three ways: by structure, in terms of the process by which it is made, and in terms of physical or chemical

properties. The most explicit and definite manner in which to define chemical compounds is by structure.

Where, according to the description, structure is essential to determining what subject-matter is useful, this structure must be included in the claims. [See also 17.03.04]

As a matter of clarity, where a biomolecule is defined in terms of its sequence, the claim must define the biomolecule in terms of the sequence listing, and must not simply define "a sequence listing". This latter form could be interpreted as being directed to mere information - *i.e.* to the string of letters of the sequence listing, rather than to the biomolecule.

The fact that a claim explicitly refers to a sequence does not preclude an objection for lack of clarity; for example, in situations where the reference sequence contains a number of variable symbols; *i.e.*, the symbols "Xaa" or "n".

17.07.05*c* Defining families of biomolecules

Uncertainty as to the scope of a claim is often created when families of biomolecules are defined on the basis of vague terminology and variable methods of analysis.[60] As such, it is critical for claims to include, as far as is possible, accurate terminology and the particulars of any analytical methods which may be needed in order to determine the precise limits of the claim.

17.07.05*d* Families of hybridizing nucleic acids

Families of nucleic acids are often defined as sequences which are capable of hybridizing to a particular target sequence under various reaction, or stringency, conditions. Because there is no clear consensus as to what conditions are be used in a given hybridization reaction, and since the use of different reaction conditions will capture different families of nucleic acids, a claim may be held to be indefinite for failing to define the particular parameters to be used during the hybridization reaction and ensuing washings.

A claim which refers to a family of hybridizing nucleic acids may be held to be indefinite if the target nucleic acid itself can be any member of a vast family of nucleic acids; for example, a family of degenerate nucleic acids encoding the same amino acid sequence. In such a case, the number of possible combinations of hybridizing and target nucleic acids becomes astronomically large thus obscuring the scope of the claim.

A claim which suggests that a nucleic acid molecule which hybridizes to a target encoding sequence is itself also capable of encoding a functional polypeptide may be

held to be ambiguous since hybridizing nucleic acids, even if they do encode polypeptides, may very well simply encode nonsense polypeptides. For greater clarity, such claims should indicate that the nucleic acid molecule hybridizes to the complement of the target sequence.

17.07.05e Nucleic and amino acid terminology

Families of nucleic or amino acid sequences defined by a threshold percentage limit as compared to a target sequence may not be adequately defined if the term "homology" is used since the term implies an evolutionary relationship which either exists or does not exist.[61] Applicants are generally permitted to replace the term "homology" with the term "identity" for greater clarity. The term "similarity" may also be objectionable if there is no clear definition of what the applicant considers to be similar residues.

Families of nucleic or amino acid sequences referred to as being "substantially identical" to a target sequence may not be adequately defined since there is no art accepted convention as to what is encompassed by the term "substantially" and since the scope of a claim may vary depending on what one considers to be a "substantially" identical sequence.

17.07.05*f* Sequence alignment methods

Whenever a sequence is identified as having a certain percent identity (equivalency) to a reference sequence, it is necessary to define in the claim whether the percent identity is relative to the full length of the reference sequence or is a partial alignment (such as a BLAST alignment[62]). If a partial alignment percent identity is intended, it is necessary that the nature of the alignment method be sufficiently described in order to enable the basis of the comparison to be fully appreciated.

Sequence alignment over the full length of the reference sequence is greatly preferred.

17.08 Special topics

This section concerns areas of biotechnology for which particular practices exist and which practices merit particular attention, elaboration or clarification.

17.08.01 Antibodies

Antibodies, as a class of chemical compounds, have been structurally and functionally well-characterized and it is known that, in general, immunization of a mammal with an antigen results in the production of antiserum containing antibodies reactive with the antigen. Antiserum contains a generic family, genus or polyclonal mixture of antibodies

where each individual antibody binds to an antigenic determinant or epitope carried on the immunizing antigen. The antiserum is representative of the entire family of antibodies capable of binding to the antigen.

As is the case with claims to any product or process, a claim to an antibody must be supported by a specification which (a) provides a written description of the antibody, and (b) would enable a person of skill in the art to produce the antibody.

17.08.01*a* "Generic" and polyclonal antibodies

Methods for preparing polyclonal sera are well known in the art and a specification need not describe in detail any of these methods to be enabling.

With respect to written description, an antibody, like any other chemical compound, can be described in terms of its chemical structure (polypeptide sequence). However, antibodies are rarely described this way. Indeed, it has become accepted practice to describe antibodies in terms of the antigen to which they bind and claims to antibodies often include functional language such as "capable of binding to". Therefore, a written description of an antibody can be provided by a written description of its antigen binding partner. Since antigens are chemical compounds, the best way to describe an antigen is in terms of its chemical structure. A description in terms of physical or chemical properties may be adequate provided that whatever properties are recited are sufficient to distinguish the antigen from other chemical compounds.

Since an antigen is implicitly understood to carry many epitopes, a written description of the antigen is akin to a written description of the collective of epitopes carried on the antigen and therefore provides a description of the corresponding generic or polyclonal binding partners.

If an application includes a claim to an antigen and a claim to an antibody reactive with the antigen, both claims should be commensurate in scope with respect to the antigen.

If the prior art teaches that antigen X is old, obvious or lacks utility, then antibodies reactive with that antigen would generally be considered obvious or lacking utility. Where the prior art discloses antibodies reactive with a close structural relative of antigen X, then a claim to "an antibody capable of binding to antigen X" may read on the old and known antibody by virtue of cross-reactivity and the claim may therefore be considered to be anticipated.

A claim to "an antibody capable of binding to antigen X" or "a polyclonal antibody capable of binding to antigen X" will generally be considered to be supported by a specification provided:

(i) antigen X itself has been adequately described; and

(ii) either antiserum has been prepared, or where antiserum has not been prepared, there is neither anything peculiar about the antigen nor any indications that would lead a person of skill in the art to question the likelihood of success if that person desired to produce an antibody to the antigen.

Examples:

1. The specification discloses a novel protein isolated from a bacterial pathogen, that has utility as a diagnostic target for detecting disease caused by the bacterium. Further, the specification provides the amino acid sequence (SEQ ID NO: 1) of the protein, methods of purifying it using recombinant techniques, and methods of preparing antibodies to the protein by immunizing a suitable mammalian host. No working examples of an antibody are provided. The protein appears to be a member of a new class of bacterial proteins and a sequence search reveals that the closest structural relative is 20% identical with no common domains of any significance.

Claim:

1. An antibody capable of binding to the protein defined by SEQ ID NO: 1.

Analysis: The claim is acceptable. Since the protein is new, useful as a diagnostic target, and exhibits little structural similarity to known proteins, antibodies prepared against it are likewise, new, useful and unobvious. The specification is both enabling with respect to preparing antibodies and includes a written description (amino acid sequence) of the antigen. The claim is therefore fully supported by the specification.

2. The specification discloses a novel protein isolated from a bacterial pathogen, that has utility as a diagnostic target for detecting disease caused by the bacterium. Further, the specification provides the amino acid sequence (SEQ ID NO: 1) of the protein, methods of purifying it using recombinant techniques, and methods of preparing antibodies to the protein by immunizing a suitable mammalian host. No working examples of a novel antibody are provided. The gene encoding the protein was cloned by immunoscreening a phage library with an old and known antibody reactive with a close homologue of the protein.

Claim:

1. An antibody capable of binding to the protein defined by SEQ ID NO: 1.

Analysis: The claim is objectionable. Despite the fact that the protein defined by SEQ ID NO: 1 itself appears to be novel, the claimed antibody is anticipated since the claim reads on the old and known antibody that has the requisite binding capability, i.e., the

antibody used for immunoscreening.

3. The specification discloses a correlation, identified by chromatographic analysis, between a novel hydrophobic peptide and a disease. The amino acid sequence of the peptide is provided and reveals that it is a low-molecular-weight member of a class of peptides to which no known antibodies have ever been prepared despite several attempts. The specification asserts that antibodies to the peptide may be prepared for eventual use in an immunoassay for the disease. The specification does not provide any working examples of an antibody reactive with the peptide.

Claim:

1. An antibody capable of binding to the peptide defined by SEQ ID NO: 1.

Analysis: The claim is objectionable. No antibodies were raised against the novel peptide and the specification teaches that, despite several attempts, antibodies have never been raised against peptides of similar type. A person skilled in the art would not regard the specification as enabling the production of the claimed antibody.

17.08.01*b* Monoclonal antibodies

A monoclonal antibody binds to a specific antigenic determinant or epitope carried on an immunizing antigen. A monoclonal antibody can be viewed as one member of the family of polyclonal antibodies contained in antiserum produced by an immunizing antigen.

As with claims to polyclonal antibodies, a claim to a monoclonal must be supported by a specification that is both enabling and includes an adequate written description of the antibody.

The core steps for preparing monoclonal antibodies are now well-known and established. Thus, for a specification to be enabling, the polypeptide antigen against which the monoclonal is raised must be described but an applicant need not set out a detailed procedure for producing the antibody. A detailed step-by-step protocol would only be necessary if the invention resides, at least in part, in an applicant having adapted known procedures to overcome some difficulty in making a monoclonal to a particular antigen.

An examiner will consider the following when determining whether a specification is enabling with respect to monoclonal antibodies:

(1) whether the applicant actually prepared a monoclonal antibody;
(2) where a monoclonal antibody has not been prepared,

(i) whether the antigen and core steps for preparing the monoclonal are described,
(ii) the availability and/or ease of production of the antigen,
(iii) whether there are indications that the applicant was unable to produce a monoclonal antibody or to suggest that one of skill in the art would not be able to reproducibly make a monoclonal to the subject antigen,
(iv) whether there are indications which suggest that undue experimentation or undue adaption of known core steps would be necessary for preparing a monoclonal.

The foregoing list is non-exhaustive and non-cumulative and is intended as a guide only. Each application will be considered on its own merits.

A specification must not only be enabling with respect to a claimed monoclonal antibody but also must provide a written description of the antibody. The written description requirement is satisfied where a specification describes at least one monoclonal and it is evident that the applicant was in possession of the antibody at the time the patent application was filed. Reference to a biological deposit of either a hybridoma or a monoclonal antibody is the best way to demonstrate possession.

Applicants should note however, that a deposit for patent purposes, i.e., for consideration in determining whether or not subsection 27(3) of the *Patent Act* has been complied, must be in accordance with sections 104 to 106 of the *Patent Rules*.

An adequate written description of a monoclonal antibody can also be provided by an explicit description of the epitope to which it binds in the same way as a written description of a generic antibody or polyclonal can be provided by a general description of an antigen. As discussed in section 17.08.01*a*, a written description of the antigen amounts to a written description of the collective of epitopes carried on the antigen and therefore provides a description of the family of polyclonal binding partners. Since a monoclonal is one member of the family which binds to a specific epitope, if it is to be described in terms of its binding partner, the specification must include a structural description of the epitope.

An epitope on a protein can be described in terms of a specific amino acid sequence which is a subset of the complete polypeptide sequence of the protein, or as a binding pocket defined by specific non-contiguous amino acids.

Where existence of an epitope has not been demonstrated but rather is predicted, for example by computer modelling, a specification must disclose not only a structural description of the epitope, but also a factual basis and sound line of reasoning to support the prediction of a putative antibody binding site.

An examiner will consider the following when determining whether a specification provides a written description with respect to monoclonal antibodies:

(1) whether the applicant was in physical possession of a monoclonal antibody at the time of filing;

(2) whether the applicant had made a deposit of a hybridoma or monoclonal antibody for patent purposes or was in a position to do so at the time of filing;

(3) whether there is specific structural description of an epitope or epitopes carried on the antigen to which the monoclonal will bind.

The foregoing list is non-exhaustive and non-cumulative and is intended as a guide only. Each application will be considered on its own merits.

Where the prior art discloses a monoclonal antibody specific for antigen X, a broad claim would not be acceptable as it would read on the prior art.

A prior art document which merely describes how a monoclonal antibody to an antigen might be prepared yet does not specifically describe such a monoclonal antibody, is not considered an anticipatory document against an application that claims and specifically describes a monoclonal antibody.

Example:

1. The specification discloses a novel isolated protein from a bacterial pathogen that has utility as a diagnostic target for detecting disease caused by the bacterium. Further, the specification provides the amino acid sequence (SEQ ID NO: 1) of the protein, methods of purifying it using recombinant techniques as well as methods of preparing monoclonal antibodies to the protein by using traditional techniques. The specification describes neither an actual monoclonal antibody, nor a paratope thereof, nor a specific epitope of the protein.

Claim:

1. A monoclonal antibody capable of binding to the peptide defined by SEQ ID NO: 1.

Analysis: The claim is objectionable. Although the specification is enabling with respect to preparing a monoclonal antibody capable of binding to the antigen, there is no written description of such a monoclonal. The specification does not disclose that the applicant was in possession of a monoclonal antibody nor does it disclose a structural description of a specific epitope where a putative monoclonal antibody would bind.

Appendix 1 - Deposits of biological material

For the purposes of section 38.1 of the *Patent Act*, the term "biological material" includes material which is capable of direct or indirect self-replication. Directly self-replicating biological materials are those that replicate by themselves. Indirectly self-replicating biological materials are those that are capable of replication only in association with a directly self-replicating biological material. Bacteria, fungi (including yeast), cells in culture and hybridomas are representative examples of directly self-replicating materials; indirectly self-replicating materials include nucleotide sequences, plasmids, vectors, viruses, phages and replication-defective cells.

The Budapest Treaty

The *Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure* (The *Budapest Treaty*) was established in 1977. The Treaty is administered by WIPO and obliges contracting states to recognize the fact and date of a deposit of biological material for patent purposes, when it is made in a depositary which has acquired official status under the Treaty. Such a depositary is known as an International Depositary Authority (IDA). An applicant who is making multiple patent filings need only make one IDA deposit to satisfy the deposit practice in all contracting states.

The term “microorganism” is not defined in the Treaty so that it may be interpreted in a broad sense as to the applicability of the Treaty to microorganisms to be deposited under it. Whether an entity technically is or is not a microorganism matters less in practice than whether deposit of that entity is necessary for the purposes of disclosure and whether an IDA will accept it. Thus, for example, tissue cultures and plasmids can be deposited under the terms of the Treaty, even though they are not microorganisms in the strict sense of the word.

The *Budapest Treaty* came into force, with respect to Canada, on September 21, 1996.

Where to make a deposit

A list of International Depositary Authorities and their specific requirements is available at the following site:

http://www.wipo.int/export/sites/www/treaties/en/registration/budapest/pdf/idalist.pdf

When to make a deposit

In accordance with subsection 104(1) of the *Patent Rules*, a deposit of biological

material with an international depositary authority must be made on or before the filing date of the application.

Identifying a deposit

In accordance with subsections 104(2) and 104(3) of the *Patent Rules*, the applicant must inform the Commissioner, prior to publication of the application, of the name of the IDA and the accession number given by the IDA to the deposit, and must include that information in the description. Further, in accordance with section 104.1 of the *Patent Rules*, the applicant must include in the description the date of the original deposit with the IDA.

Term of deposit

When a sample of biological material is deposited in an IDA under the *Budapest Treaty* for the purposes of patent protection, the depositor undertakes not to withdraw the sample for a period of at least 30 years from the date of deposit and for at least five years from the date of the most recent request made to the depositary for the furnishing of a sample of the deposited material (Rules 6 and 9 of the Regulations under the *Budapest Treaty*).

New and substitute deposits

After an original sample of biological material has been deposited in an IDA (an original IDA deposit), circumstances may necessitate that a new sample of the same material be deposited in either the same or a different IDA (Article 4 of the *Budapest Treaty*) or that the sample be transferred to a substitute IDA (Rule 5 of the *Regulations Under the Budapest Treaty*).

If an IDA cannot furnish a sample of deposited material because it is no longer viable, a depositor must make a new deposit in the same IDA.

If an IDA cannot furnish a sample of deposited material because the sample must be sent abroad and this is prevented by export or import restrictions, a depositor may make a new deposit in another IDA.

To maintain an original IDA deposit date, a new deposit must be made within three months of the depositor receiving notice from an IDA that a sample is no longer viable or cannot be sent abroad, or that the IDA's status has changed. The deposit must be accompanied by a statement that the newly deposited material is the same as that originally deposited. Under subsection 106(2) of the *Patent Rules*, if a new deposit is not made in accordance with Article 4 of the *Budapest Treaty*, the application is treated

as if no deposit had ever been made.

If an IDA temporarily or permanently discontinues any of the tasks required of it as an IDA such that samples of deposited biological material can no longer be provided, the defaulting IDA is required to transfer samples of deposited materials to another IDA. The new IDA is referred to as a substitute IDA and the deposit is known as a substitute deposit.

In accordance with section 105 and subsection 106(1) of the *Patent Rules*, whenever a deposit of a biological material is made (or transferred) to an IDA different from the original IDA, the applicant must inform the Commissioner of the name of the new IDA and of the accession number given by the new IDA to the deposit before the expiry of the three-month period after the date of issuance of a receipt by that IDA.

Access to deposited biological material

Deposited biological material becomes available to the public once a patent application is open to inspection under section 10 of the *Patent Act,* or for applications filed before October 1, 1989 once a patent issues.

In accordance with subsection 104(4) of the *Patent Rules*, an applicant is entitled to restrict access to a deposit of biological material until such time as a patent has issued, or the application is refused, abandoned and no longer subject to reinstatement, or withdrawn. In such cases, any person may request that an independent expert be nominated by the Commissioner in accordance with subsection 109(1) of the *Patent Rules*. Once so nominated, that expert will have access to the deposit in accordance with subsection 104(4) of the *Patent Rules*.

In order to access a deposited biological material, a request must be made. Where a restriction has been made by the applicant and is in effect, only the independent expert may make such a request. When such a restriction is not in place, or no longer applicable, any person may request access to the deposited material.

A request for a sample of the biological material must be submitted to the Commissioner of Patents and requires, inter alia, that the requester undertake in accordance with section 108 of the *Patent Rules* not to make the sample, or any culture derived from the sample, available to any other person nor to use the sample, or any culture derived from the sample, for any purpose other than experiments that relate to the subject-matter of the application until such time as a patent issues, or the application is refused, abandoned and no longer subject to reinstatement, or withdrawn.

In the case of a granted patent, the request for a sample of the deposited material may be made directly to the IDA, without the need to provide a request form certified by the

Commissioner of Patents unless the IDA specifically requires that a certified request form indicating that the patent has been issued be submitted.

A request form for the furnishing of a sample of deposited material will be published from time to time in the Canadian Patent Office Record (CPOR) and is also provided on-line at:

http://www.wipo.int/export/sites/www/treaties/en/registration/budapest/guide/pdf/app3_budapest_forms.pdf.

Detailed procedures for obtaining samples of biological materials are provided in appendix 2.

Nomination of an independent expert

In accordance with subsection 109(1) of the *Patent Rules*, the Commissioner of Patents will nominate an independent expert with the agreement of the applicant. Both the applicant and the person requesting that an expert be nominated may make suggestions as to who would be a suitable expert. In the event that the Commissioner of Patents and the applicant cannot agree on an acceptable expert within a reasonable time after a request has been made that such an expert be nominated, the applicant's notice under subsection 104(4) of the *Patent Rules* that access to a deposit be restricted to an expert is deemed, in accordance with subsection 109(2) of the *Patent Rules*, never to have been filed.

Certification

After a request has been filed with the Commissioner of Patents for the furnishing of a sample of deposited biological material, the Commissioner will, in accordance with subsection 107(2) of the *Patent Rules*, make the certification referred to in Rule 11.3(a) of the *Regulations Under the Budapest Treaty* that the deposit is referred to in an application for patent in Canada, that the requester has fulfilled all conditions for the furnishing of a sample, and that the requester has a right to a sample of the deposited material.

A copy of the request along with the certification is then sent to the requester in accordance with subsection 107(3) of the *Patent Rules* or in the case where the requester is an independent expert, to the applicant and to the person who requested the nomination of the expert in accordance with subsection 110(2) of the *Patent Rules*.

Appendix 2 - Steps for obtaining samples of biological materials

To obtain a sample of a biological material referred to in a pending application on which no restriction has been placed under section 104(4) or 160(4) of the *Patent Rules*:

(i) the requesting party completes parts I through IV of the request form;
(ii) the requesting party prepares a letter of undertaking, agreeing to abide by the conditions set out in section 108 or 164 of the *Patent Rules*;
(iii) the requesting party, under a covering letter, sends the letter of undertaking and the request form to the Commissioner of Patents, Place du Portage I, 50 Victoria St., Gatineau, Canada, K1A 0C9;
(iv) the Commissioner, or a designate, completes part V of the request form, certifies it with the seal of the Patent Office and returns it to the requesting party under a covering letter;
(v) the requesting party sends the request form, a purchase order and any fee required to the IDA;
(vi) the IDA sends a sample of the biological material to the requesting party.

To release a sample of a biological material referred to in a pending application, on which a restriction has been placed under section 104(4) or 160(4) of the *Patent Rules,* to an independent expert:

(i) the requesting party requests that the Commissioner of Patents nominate an independent expert for the purposes of the application;
(ii) the Commissioner of Patents, with the agreement of the applicant, nominates an independent expert within a reasonable time;
(iii) the independent expert completes parts I through IV of the request form;
(iv) the independent expert prepares a letter of undertaking, agreeing to abide by the conditions set out in section 108 or 164 of the *Patent Rules*;
(v) the independent expert, under a covering letter, sends the letter of undertaking and the request form to the Commissioner of Patents, Place du Portage I, 50 Victoria St., Gatineau, Canada, K1A 0C9;
(vi) the Commissioner, or a designate, completes part V of the request form, and certifies it with the seal of the Patent Office;
(vii) the Commissioner sends, under covering letters, the completed request form to the requesting party, and a copy of thereof to the applicant;
(viii) the requesting party sends the request form, a purchase order and any fee required to the IDA;
(ix) the IDA sends a sample of the biological material to the independent expert.

To obtain a sample of a biological material referred to in an issued patent:

(i) the requesting party writes to the IDA with a purchase order giving the name

and address of the requesting party;
(ii) the order should include evidence, *e.g.* a copy of the cover page of the Canadian patent, indicating that the patent has issued and the accession number of the biological material desired;
(iii) where required, the fee charged by the IDA for furnishing the sample is submitted along with the order.

Endnotes for Chapter 17

1. *Re Application of Abitibi Co.* [(1982) C.D. 933, 62 C.P.R. (2nd), 81 (P.A.B.)]

2. *Harvard College v. Canada (Commissioner of Patents)* [2002] SCC 76; [(2002), 21 C.P.R. (4th), 417 (S.C.C.)]

3. *Office Practice Regarding Fertilized Eggs, Stem Cells, Organs and Tissues* C.P.O.R. Vol. 134, No. 25, June 20, 2006

4. *Monsanto Canada Inc. v. Schmeiser* [2004] SCC 34; [(2004), 31 C.P.R. (4th), 161 (S.C.C.)] at paragraph 17

5. *Pioneer Hi-Bred Ltd. v. Canada (Commissioner of Patents)*, [1989] S.C.R. 1623 [(1989), 25 C.P.R. (3rd), 257(S.C.C.)] at pages 263-265 (cited to C.P.R.)

6. *Tennessee Eastman v. Commissioner of Patents* [(1972), 8 C.P.R. (2nd), 203 (S.C.C.)]; *Imperial Chemical Industries Ltd. v. Commissioner of Patents* [(1986), 9 C.P.R. (3rd), 289 (F.C.A.)]

7. This conclusion is inferred from the decision in *Re Application 319,105 of Boehringer Mannheim G.m.b.H.* (1987) C.D. 1108, allowing a diagnostic method involving the removal of blood from the body

8. *Re Application 394,006 of Catheter Technology Corporation* (1986) C.D. 1082

9. *Re Application No. 532,566 of General Hospital Corporation* (1996) C.D. 1209; *Re Application No. 559,960 of Senentek* (1997) C.D. 1213

10. *Re Application No. 003,389 of N.V. Organon* [(1973) C.D. 144, 15 C.P.R. (2nd), 253 (P.A.B.)]; *Re Application for Patent of Goldenberg* [(1988) C.D. 1119, 22 C.P.R. (3rd), 159 (P.A.B.)]

11. *Re Application No. 862,758* (1970) C.D. 33; *Re Application No. 954,851 of Biehl* (1971) C.D. 63

12. *Axcan Pharma Inc. v. Pharmascience Inc.,* [2006] FC 527 [(2006), 50 C.P.R. (4th), 321 (F.C.)]

13. *Re Application No. 003,772 of Ijzerman* (1975) C.D. 254; *Merck & Co. v. Apotex Inc.* [2005] FC 755 [(2005), 41 C.P.R. (4th), 35 (F.C.)]

14. *Goldenberg* (supra at 10)

15. *Consolboard Inc. v. MacMillan Bloedel (Saskatchewan) Ltd.* [(1981), 56 C.P.R. (2nd), 145 (S.C.C.)] at page 160 citing *Halsbury's Laws of England* (3rd ed.), vol. 29 at page 59

16. *Re Application of Abitibi Co.* [(1982) C.D. 933, 62 C.P.R. (2nd), 81 (P.A.B.)]

17. *Re Application No. 003,389 of N.V. Organon* [(1973) C.D. 144, 15 C.P.R. (2nd), 253 (P.A.B.)]; the criteria "controllable and reproducible by the means disclosed" were commented on by the Federal Court of Appeal in *Harvard College v. Canada (Commissioner of Patents)* [(2000), 7 C.P.R. (4th), 1 (F.C.A.)] at paragraph 70 (page 26); it was clarified at paragraph 75 that these requirements pertain only to those features necessary to achieve the objects of the invention.

18. *Apotex Inc. v. Wellcome Foundation Ltd.* [2002] SCC 77 [(2002), 21 C.P.R. (4th), 499 (S.C.C.)] at paragraph 46

19. *Apotex* (supra at 18) at paragraph 70

20. *Pfizer Canada Inc. v. Apotex Inc.* [2007] FC 26 [(2007), 59 C.P.R. (4th), 183 (F.C.)] at paragraph 70; aff'd [2007] FCA 195 [(2007), 60 C.P.R. (4th), 177 (F.C.A.)]

21. The Office's interpretation of *Apotex* (supra at 18) as regards proper disclosure has recently been confirmed in *Eli Lilly Canada Inc. v. Apotex Inc.* [2008] FC 142 at paragraph 164.

22. *Aventis Pharma Inc. v. Apotex Inc.* [2005] FC 1283 [(2005), 43 C.P.R. (4th), 161 (F.C.)] at paragraphs 93 and 164; aff'd [[2006] FCA 64 [(2006), 46 C.P.R. (4th), 401 (F.C.A.)] at paragraph 30

23. *Monsanto Co. v. Commissioner of Patents* [(1979), 42 C.P.R. (2nd), 161 (S.C.C.)]

24. *Radio Corporation of America v. Raytheon Manufacturing Co.* [(1957), 27 C.P.R. (1st), 1 (Ex.Ct.)] at page 14

25. *Minerals Separation North American Corp. v. Noranda Mines, Ltd.* [(1947), 12 C.P.R. (1st), 102 (Ex.Ct.)] at page 111; the cited passage has been referred to more recently in, e.g., *Baker Petrolite Corp. v. Canwell Enviro-Industries Ltd.* [2001] FCT 889 [(2001), 13 C.P.R. (4th), 193 (F.C.T.D.)] (rev'd on other grounds) and *671905 Alberta Inc. v. Q'Max Solutions Inc.* [2001] FCT 888 [(2001), 14 C.P.R. (4th), 129 (F.C.T.D.)] (varied [(2003), 27 C.P.R. (4th), 385 (F.C.A.)]). *Minerals Separation* was referred to in both *Consolboard* (supra at 15) at page 157 and *Pioneer Hi-bred* (supra at 5) at page 268 as in a general sense setting out the requirements of a sufficient disclosure.

26. *Consolboard* (supra at 15) at pages 154 to 155, Dickson J. quoting H.G. Fox from his *Canadian Law and Practice Relating to Letters Patent for Inventions* [(1969), 4th Ed.]

27. *Consolboard* (supra at 15) at page 157

28. *Minerals Separation* (supra at 25) at page 111; this passage endorsed in *Consolboard* (supra at 15) at page 157

29. *Pioneer Hi-Bred* (supra at 5) at page 271

30. *Abitibi* (supra at 16); *Re Application No. 291,870 of Connaught Laboratories* (1982) C.D. 962

31. Little jurisprudence of direct relevance to biotechnology exists on point. Consider, however, the conclusions reached in *Re Institut Pasteur Patent Application* [(1995) C.D. 1206, 76 C.P.R. (3rd) 206], *Re Application No. 610,944 of Alonso* (2006) C.D. 1269, and *Re Application No. 471,056 of Research Corporation* (1992) C.D. 1171. In *Pasteur*, claims to a hybridoma and to a monoclonal antibody were refused because these species were deemed not to be adequately described - no example of a successfully prepared hybridoma or monoclonal antibody having been provided. In comparison, in *Alonso* and *Research Corporation* a number of examples of prepared hybridomas or mutant oyster setting bacteria were considered to provide a proper description of the claimed subject-matter.

32. *Apotex Inc. v. Sanofi-Synthelabo Canada Inc.* [2008] SCC 61 at paragraphs 24-27 and 33-37

33. *Reeves Bros. v. Toronto Quilting* [(1978), 43 C.P.R. (2nd), 145 (F.C.T.D.)]

34. *Beloit Canada Ltd. v. Valmet* Oy [(1986), 8 C.P.R. (3rd), 289 (F.C.A.)]

35. *Apotex v. Sanofi-Synthelabo* (supra at 32) at paragraph 28. Although the Supreme Court was here only referring to the decision in *Beloit*, the same conclusion would seemingly apply to the earlier guidance in *Reeves Bros.*

36. *Diversified Products v. Tye-Sil* [(1991), 35 C.P.R. (3rd), 350 (F.C.A.)]

37. *Apotex v. Sanofi-Synthelabo* (supra at 32); *Baker Petrolite Corp. v. Canwell Enviro-Industries Ltd.* [2002] FCA 158 [(2002), 17 C.P.R. (4th), 478 (F.C.A.)]

38. *Abbott Laboratories v. Canada (Minister of Health)* [2006] FCA 187 at paragraphs 23 to 25; *Calgon Carbon Corporation v. North Bay (City)* [2006] FC

1373 [(2006), 41 C.P.R. (4th), 78 (F.C.)] at paragraphs 114 to 136

39. *Astrazeneca AB v. Apotex Inc.* [2007] FC 688 [(2007), 60 C.P.R. (4th), 199 (F.C.)] at paragraphs 50-53

40. *Hoffmann-LaRoche & Co. Ltd. v. Commissioner of Patents* [(1955), 23 C.P.R. (1st), 1 (S.C.C.)]

41. *Janssen-Ortho Inc. v. Novopharm Limited* [2006] FC 1234 [(2006), 57 C.P.R. (4th), 6 (F.C.)] at paragraphs 99, aff'd [2007] FCA 217 [(2007), 59 C.P.R. (4th), 116 (F.C.A.)]. The requirement of s.28.3 has been variously described by the courts as one of "ingenuity", "inventive ingenuity", "invention", "inventiveness", and "non-obviousness". These terms can be used more or less interchangeably to describe the requirement codified in s.28.3.

42. *Janssen-Ortho* (supra at 41) at paragraphs 109-110; *Canamould Extrusions Ltd. v. Driangle Inc.* [2003] FCT 244 [(2003), 25 C.P.R. (4th), 343 (F.C.T.D.)] at paragraph 61 (rev'd on other grounds); *Baker Petrolite* [2001] FCT 889 [(2001), 13 C.P.R. (4th), 193 (F.C.T.D.)] at paragraphs 94-96 (rev'd on other grounds, see supra at 33); *Harvard College v. Canada (Commissioner of Patents)* [2000] 4 F.C. 528 [(2000), 7 C.P.R. (4th), 1 (F.C.A.)] at paragraph 28 (rev'd on other grounds, see supra at 2)

43. *Beloit* (supra at 34) at page 293

44. *Diversified Products* (supra at 36) at page 366

45. *The King v. Uhlemann Optical Co.* [1952] 1 S.C.R. 143 at paragraph 19 [(1951), 15 C.P.R. (1st), 99 (S.C.C.)] at pages 104-105; *Wandscheer v. Sicard Ltd* [1948] S.C.R. 1 [(1947), 8 C.P.R. (1st), 35 (S.C.C.)] at page 48; both case citing *Samuel Parkes & Co. v. Cocker Bros. Ltd.* 46 R.P.C. 241 at page 248.

46. *Apotex v. Sanofi-Synthelabo* (supra at 32) at paragraphs 61-64; *Janssen-Ortho Inc. v. Novopharm Limited* [2007] FCA 217 [(2007), 59 C.P.R. (4th), 116 (F.C.A.)] at paragraph 25. In *Sanofi-Synthelabo*, the Supreme Court refers at paragraph 67 to a general 4-step approach that may be used in framing the inquiry.

47. *Janssen-Ortho Inc. v. Novopharm Limited* [2006] FC 1234 [(2006), 57 C.P.R. (4th), 6 (F.C.)] at paragraph 113, aff'd [2007] FCA 217 [(2007), 59 C.P.R. (4th), 116 (F.C.A.)] at paragraph 25

48. *Apotex v. Sanofi-Synthelabo* (supra at 32) at paragraphs 59-69, especially at 59, 64, 68 and 69

49. *Beloit* (supra at 34) at page 294; for the purposes of examination, the term "patent" must be understood to mean "application".

50. *Minerals Separation North American Corp. v. Noranda Mines, Ltd.* [(1949), 12 C.P.R. (1st), 102 (S.C.C.)] at pages 199, 203 to 204, and 218 citing *Natural Colour Kinematograph Co. v. Bioschemes Ltd.* 32 R.P.C. 256 at pages 266 and 269; *Free World Trust v. Électro Santé Inc.* [2000] SCC 66 [(2000), 9 C.P.R. (4th), 168 (S.C.C.)] at paragraphs 41 to 43

51. *I.G. Farbenindustrie A.G.'s Patents* [(1930), 47 R.P.C. 289] at pages 322 to 323

52. The *Farbenindustrie* criteria appear to have been endorsed at least as early as 1947 in *Minerals Separation* (supra at 25 at pages 163 to 164) and were affirmed by the Supreme Court in *Apotex v. Sanofi-Synthelabo* (supra at 32) at paragraph 9.

53. *Apotex v. Sanofi-Synthelabo* (supra at 32) at paragraph 9; *I.G. Farbenindustrie* (supra at 51) at page 321

54. *Pfizer Canada Inc. v. Canada (Minister of Health)* [2006] FCA 214 [(2006), 52 C.P.R. (4th), 241 (F.C.A.)] at paragraph 31; *I.G. Farbenindustrie* (supra at 51) at page 323

55. *Re Application 2,017,025 of Yeda Research and Development Corporation* (2007) C.D. 1273

56. *Free World Trust* (supra at 50) at paragraph 32

57. *Natural Colour Kinematograph* (supra at 50) at page 266; this passage also cited in *Minerals Separation North American Corp. v. Noranda Mines, Ltd.* [(1952), 15 C.P.R. (1st), 133 (P.C.)]

58. Any such amendment, of course, must not introduce new subject-matter such as to contravene subsection 38.2(2) of the *Patent Act*.

59. *Natural Kinematograph* (supra at 50) at page 266. The use of "ambiguous" in this context should be understood in the context of the entire passage, wherein it was earlier stated that a patent is invalid if it relies on "language which, when fairly read, is avoidably obscure or ambiguous".

60. Dufresne, Guillaume and Duval, Manuel, "Genetic sequences: how are they patented?" (2004), 22 Nature Biotechnology 231; Yoo, Heahyun *et al.*, "Intellectual Property Management of Biosequence Information from a Patent Searching Perspective" (2005), 27 World Patent Information 203

61. Reeck, Gerald *et al.*, " 'Homology' in proteins and nucleic acids: A terminology muddle and a way out of it" (1987), 50 Science 667

62. Altschul, S. *et al.*, "Basic Local Alignment Search Tool" (1990), 215 Journal of Molecular Biology 403

Chapter 18
Protests and filing of prior art

18.01 Filing prior art

Under section 34.1 of the *Patent Act*, any person may file prior art with the Commissioner. This prior art can consist of patents, applications for patents open to public inspection, or publications that the person believes have a bearing on the patentability of any claim in a patent application. Prior art filed with the Commissioner under section 34.1 of the *Patent Act* must be accompanied by an explanation of why the art is pertinent. If the application referred to by the person submitting the prior art is a PCT application which has not yet entered the national phase in Canada, the Canadian Patent Office will retain the submission until the last date for late national entry in Canada has expired.

When prior art is received under the provisions of section 34.1 of the *Patent Act*, the provider is notified that the filing of prior art has been received, but the provider will not be informed regarding the action taken thereon [1] . The prior art material is made part of the file of the application and the applicant of that application is notified that a submission of prior art has been made. The prior art is only considered by the examiner after a request for examination has been received. The normal prosecution, including allowance of applications, continues despite the submission of a filing of prior art [2], unless sufficient grounds are presented to warrant action based on this filing of prior art.

When there is no prior art listed or when there is no explanation of why the art is pertinent, in a “filing of prior art” letter, this letter is then treated and considered as a protest.

18.02 Protests

In accordance with section 10 of the *Patent Rules*, any written communication made to the Commissioner with the stated or apparent intention of protesting against the granting of a patent is acknowledged by the Commissioner. The protestor will not be informed regarding the action taken thereon[1]. However a protestor may have access to

the prosecution file of the application at the time of opening to public inspection. When the information is available during the pendency of an application, a protest provides an adequate alternative remedy that should be exhausted by a competitor before seeking judicial review [3].

Protests may develop as a result of public inspection of opened applications. A protest may also develop as a result of a search request under section 11 of the *Patent Act* by means of which the protestor has discovered that there is a pending application that corresponds to a foreign patent. In these cases the protestor should identify the Canadian patent publication number (if following a public inspection of opened applications), or the foreign patent publication (if following a request under section 11 of the *Patent Act*). Any protest that fails to identify an application by number, inventor or applicant reduces the likelihood of the Commissioner locating the application and therefore reduces the effectiveness of the protest.

Each time a protest is received, the Patent Office carries out a search to identify or to confirm (when the application(s) is/are identified by the protestor) the application(s) to which the protest applies. If the application(s) is/are found, the protest is made part of the file of the application and therefore when the file is opened any action taken on the protest is also available. A notification that a protest has been received in the Patent Office will be sent to the applicant of any application against which a protest is made. The protestor will also be advised of the receipt of the protest in the Patent Office (the application number will not be Disclosed if this application is not already opened for public inspection). When the specific application cannot be located (e.g. when the application has not already been filed at the Patent Office or when there is not enough information in the protest to identify the application), the protest is classified in its most relevant class(es), unless the application is located before being brought to the examiner. The examiner keeps the protest for two years.

If the protestor wishes to submit further details or another protest, he/she is welcome to do so, but each time the protestor will only receive a notice of acknowledgment. The examiner will not discuss the prosecution of the application(s) with the protestor. The normal prosecution, including allowance of applications, continues despite the submission of a protest unless sufficient grounds are presented to warrant action based on the protest.

18.03 Affidavits

Affidavits containing allegations not backed by dated documentation will usually not be sufficient reason for the Commissioner not to grant the patent. The affidavits may however contain information that could raise serious reasons as to why a patent should not be granted or lead to documentation that could be very pertinent. Someone who submits affidavits should support his/her allegations with dated material or give details to locate such material.

18.04 Applying protests or filing of prior art

A protest or a filing of prior art is only considered by the patent examiner after the request for examination is received. Information in a protest or a filing of prior art is taken into account by the examiner, and if it provides sufficient grounds for objection, it will be cited. In the event that the application has previously been allowed by the examiner but has not yet been issued, the pertinence of the protest or of the filing of prior art will determine whether the notice of allowance will be withdrawn. If further action is required in view of the protest or of the filing of prior art, the application will be returned to the examiner. See chapter 13 for more information on notice of allowance and withdrawal thereof.

18.05 Protests or filing of prior art and confidentiality

Any protest or filing of prior art will become part of the opened application file (available to the public), therefore, any protest or filing of prior art requesting confidentiality will be returned to the sender. Information supplied in such a confidential document will not be considered by the patent examiner.

Endnotes for Chapter 18

[1] Section 10 of the *Patent Rules*: "... no information shall be given as to the action taken".

[2] Monsanto Company *et al.* v. Commissioner of Patents *et al.* (1999), 1 C.P.R. (4th) 500 at 511 *"...Notice of Allowance is not a decision subject to judicial review either by the applicant or a third party."*

[3] Pharmascience Inc. v. Commissioner of Patents *et al.* (1998), 85 C.P.R. (3d) 59 at 66, affirmed 5 C.P.R. (4th) 428

Chapter 19
Amendments to patent applications

19.01 Submission of amendments by the applicant

Applicants may amend their applications either on their own initiative or in response to an examiner's requisition. The amendment must comprise new or replacement pages for any changes made to the application and a supporting explanation as described in sections 19.02.02 and 19.02.03, below. It is strongly recommended that the template, as outlined in section 19.02.04 below, be followed.

19.01.01 Signature on the amendment

Under subsection 6(1) of the *Patent Rules*, an amendment must be signed by the authorized correspondent. In this regard, please refer to sections 4.02 and 4.03 of MOPOP regarding the appointment of agents and representatives.

The patent agent’s signature, the firm’s seal or stamp, a covering letter with the official letterhead or a mark recognized by the Patent Office to identify the firm will be accepted as a signature for an authorized correspondent who is a patent agent or an associate patent agent practitioner in a firm listed in the patent agent register. For other authorized correspondents (that is, an inventor, assignee, representative), the paper copy of the amendment must be signed, although a copy or an image of the signature on a fax or an electronic image is acceptable.

When an amendment is filed by a person or firm other than by the authorized correspondent on file at the Patent Office, this person or firm will be notified by office letter to request an appointment or revocation of agent or representative properly signed by the applicant. The amendment will be entered only after such an appointment or revocation is received. If the amendment follows an examiner’s report or an office letter, this appointment or revocation must be submitted prior the due date in order to avoid abandonment of the application.

When an amendment is submitted along with, or following, a recent appointment or revocation of agent or representative, an opening sentence should be incorporated on

the first page of the amendment to indicate that an appointment or revocation form is being concurrently filed, or has been recently filed.

19.02 Form of amendments

Under subsection 8(1) of the *Patent Rules*, communications addressed to the Commissioner in relation to a patent application must relate to one application only; however, several actions with respect to one application can be combined in the same communication. Communications regarding amendments, the appointment or revocation of agents and the payment of fees should be incorporated in the same letter using uppercase headings to introduce each action (see section 19.02.04 on Suggested Templates for Amendments).

Amendments to the application are made by inserting new pages or replacing existing pages altered by the amendments (section 34 of the *Patent Rules*). New pages must be supplied for all affected pages, irrespective of whether the changes are for adding or deleting matter.

For applications filed after October 1, 1996, all pages altered by the amendment must meet the criteria of sections 68 to 70 of the *Patent Rules* with respect to documentation presentation, section 73 of the *Patent Rules*, with respect to the numbering of pages and section 85 of the *Patent Rules,* with respect to the numbering of claims. It should be noted that while claims must be numbered consecutively in Arabic numerals, page numbers may take any form provided that they are consecutive. For example, the sequence 1, 2, 3, 3A, 3B, 4 would be acceptable for page numbering, especially when pages are inserted. If pages are deleted, the applicant can renumber the description to keep the numbering in sequence. Alternatively, the applicant may submit obliterated pages by an oblique line, which are appropriately numbered, to replace the deleted pages.

For applications filed in the period beginning on October 1, 1989 and ending on the day before October 1, 1996, all pages altered by the amendment must meet the criteria set out in sections 133 and 135 of the *Patent Rules.*

For applications filed before October 1, 1989, all pages altered by the amendment must meet the criteria of sections 169 and 171 of the *Patent Rules.*

Under subsections 71(3), 136(3) and 172(3) of the *Patent Rules*, the text matter of the abstract, the description, the drawings and the claims shall be wholly in English or wholly in French. However, the response can be filed in the other Canada official language provided that the text matter of the application and the amendments are wholly in English or wholly in French. The Patent Office will communicate with the applicant using the official language of the application, unless the applicant indicates in the response that he or she prefers to receive future communications in the other official language.

Amendments requested to take effect at some time in the future (delayed amendment), are not permitted by the Patent Office.

19.02.01 Supporting explanation

Under section 34 of the *Patent Rules,* every amendment made to an application must be accompanied by a written statement in a covering letter explaining the nature and purpose of the amendment.

If the amendment is in response to an examiner's requisition identifying defects in the application, the written statement must explain the manner in which the amendment overcomes the defects. If this statement is not provided, the Patent Office enters the amendment (except as described in 19.07 below) and the applicant is requisitioned by the examiner to provide the necessary information within a specified time limit. Where possible, the Patent Office indicates the type of information which, if it were supplied, would satisfy the requirements of section 34 of the *Patent Rules*.

The written statement must also provide complete instructions for entering the amendment into the application by specifying how pages are to be cancelled, inserted or replaced. If the instructions are vague or incomplete, the amendment will not be entered into the application file and the Patent Office will requisition clearer instructions by office letter within a specified time limit.

19.02.02 Entry of new pages into the application file

Generally, when an amendment is received in the Patent Office, it is entered into the application file before an examiner determines its acceptability. New pages submitted

by the applicant are substituted in place of the pages altered by the amendment and the covering letter with the supporting explanation for the amendment is attached to the file.

It should be noted that the entry of new pages into the application file does not denote acceptance of the amendment by the examiner.

19.02.03 Amendments to very large applications

Applications containing more than 1000 pages are considered to be very large applications.

The Patent Office requires that amendments regarding an application which was originally filed on CD-ROM has to be submitted on CD-ROM in duplicate. The CD-ROM must include a revised copy of the entire application with instructions in the covering letter filed in conjunction with the amendment describing the changes that were made.

The acceptable formats for graphic images are listed in section 5.03.02 of MOPOP and in the CPOR Notice dated December 28, 1999 (CPOR Vol. 127 No. 52, Notice No. 20).

19.02.04 Suggested templates for amendments

Under section 7 of the *Patent Rules*, communications addressed to the Commissioner in relation to an application must include:

- the name of the applicant or inventor;
- the application number, if one has been assigned by the Patent Office; and
- the title of the invention.

Further, it is recommended that the filing date and the classification, if known, be identified on the amendment. This information is useful to validate the application number.

It is also recommended that one of the following headers in uppercase be used to

identify the nature of the amendment, as applicable:

- VOLUNTARY AMENDMENT
- VOLUNTARY AMENDMENT FOLLOWING PCT NATIONAL ENTRY
- AMENDMENT/REMARKS AFTER EXAMINER'S REPORT
- AMENDMENT/REMARKS AFTER OFFICE LETTER
- VOLUNTARY SUBMISSION

The response should begin with all the instructions for entering the amendment(s) into the application, followed by any remarks. The instructions should be divided by clear headings representing each section of the patent application addressed such as the abstract, description, claims and drawings for each section of the patent application. Since the applicant may need to address several requisitions, distinct headings in the remarks for each requisition are advisable.

When an amendment is combined with other matters in the same letter, a heading for each matter in uppercase should introduce the matter, and all the different matters should be listed in uppercase on the first page of the letter, such as:

Voluntary Amendment
Appointment and Revocation of Agent
Request for Examination
Maintenance Fee

For applications filed after October 1st, 1996, according to paragraph 68(1)*(a)* of the *Patent Rules,* documents filed in connection with the patent application, including amendments, must be on sheets of good quality white paper that are free of creases and folds and that are in letter format (21.6 cm x 27.9 cm) or in A4 format (21 cm x 29.7 cm).

For applications filed before October 1st, 1996, according to sections 133 or 169, amendments must be presented clearly and legibly on sheets of good quality white paper, which shall not be more than 21.6 cm by 33 cm (8½ inches by 13 inches).

However, letter format and A4 format are preferred. Images attached to an electronic filing of amendments/remarks must be submitted in letter or A4 format.

19.03 Types of Amendments

Amendments may be submitted by the applicant either voluntarily or in response to an examiner's requisition. The procedures followed by the Patent Office to process an amendment depend on the status of the application file, for example, whether:

- an examination request has been made;
- the application was filed via the PCT;
- a Final Action has been sent;
- a notice of allowance has issued; or
- the Final Fee has been paid.

Subsections 19.03.01 through 19.03.08 describe the procedures and the criteria for acceptance for the different types of amendments that may be made to a patent application.

The amendment must meet the criteria for subject matter and completeness as set forth in sections 19.04, 19.05 and 19.07, to be acceptable to the examiner.

19.03.01 Voluntary amendments before the Request for Examination

Voluntary amendments may be made to a patent application before a request for examination has been submitted. However, the application voluntary amendments filed will not be considered by the examiner at the time of submission. Consideration for acceptance is an examination procedure which is only carried out after an examination request has been made. Voluntary amendments will also be available to public inspection when the application is open to public inspection. Consequently, public disclosure of any new subject matter in a voluntary amendment will occur at the date of opening of the application to public inspection. This could preclude the applicant from filing a new application in respect of that new subject matter at a date later that the one-year anniversary of the date of opening to the public inspection or of the date of the submission of the amendment.

19.03.02 Voluntary amendments after the Request for Examination

The acceptability of voluntary amendments that are filed after a request for examination has been submitted will be considered upon receipt.

When an applicant files a Request for Advanced Examination (Special Order) subsequent to or with an amendment, the cover page to the Request should state, preferably with a clear heading, that a Voluntary Amendment has been recently submitted and indicate the total number of claims to confirm which are to be examined (see section 13.03 for more details regarding Request for Advanced Examination).

19.03.03 Amendments on PCT applications

Amendments made to PCT applications during the international phase under Articles 19 and 34 of the Patent Cooperation Treaty form an integral part of the application at the time of entry into the national phase in Canada. The Canadian national phase application is then subject to the same amendment restrictions as all other Canadian patent applications. Further details on amending PCT applications are given in Chapter22.

19.03.04 Amendments in response to an examiner's requisition

All amendments received in response to an examiner's requisition will be considered with respect to admissibility upon receipt.

19.03.05 Amendments in response to a Final Action

Amendments received in response to a Final Action issued by an examiner are only accepted by the examiner if the amendment(s) or persuasive argument is sufficient to overcome the Examiner’s rejection. For amendments in response to Final Actions which are not acceptable to the Patent Office, see section 21.08.

19.03.06 Amendments after Notice of Allowance

Subsection 30(1) of the *Patent Rules* specifies that: where an examiner, after

examining an application, has reasonable grounds to believe that the application complies with the *Patent Act* and *Rules*, the Commissioner shall notify the applicant that the application has been found allowable and shall requisition the payment of the applicable Final Fee set out in paragraph 6(a) or (b) of Schedule II within the six-month period after the date of the notice.

Further, subsection 32(1) and (2) of the *Patent Rules* specify that:

(1) except as otherwise provided by the *Patent Act* or *Rules*, after the applicant is sent a notice pursuant to subsection 30(1), no amendment, other than an amendment to correct a clerical error that is obvious on the face of the application, may be made to the application unless the fee set out in item 5 of Schedule II is paid; and

(2) except as otherwise provided by the *Patent Act* or *Rules*, after the applicant is sent a notice pursuant to subsection 30(1), no amendment may be made to the application that would necessitate a further search by the examiner in respect of the application or that would make the application not comply with the *Patent Act* or *Rules*.

An amendment after allowance that broadens the scope of the claims or changes the point of invention (or characterization) so that something additional or different is claimed, will be refused where the change would necessitate further consideration of the art on record or a new search. This applies not only to changes to the claims, but also to additions to or deletions from the description or drawings which have the effect of broadening the scope of the claims or shifting the point of invention (subsection 32(2) of the *Patent Rules*).

Further, subsections 38.2(2) and (3) of the *Patent Act* must be satisfied. Only matter that can reasonably be inferred from the specification as originally filed or shown in the drawings as originally filed may be entered into the specification and drawings.

The examiner rules on the acceptability of each amendment after allowance and, subject to the approval by the Section Head, the amendment is either refused, or accepted and entered into the application file. Procedures for refusal of an amendment after allowance are discussed in section 19.07.04 below.

A fee for considering an amendment after allowance is required (see subsection 32(1) of the *Patent Rules* and paragraph 5 of Schedule II of the *Patent Rules*). However, no fee is required for mere correction of obvious clerical errors and to changes in the title.

Provided an amendment after allowance fee was paid with an original amendment after allowance which was refused, no further fee is required upon resubmission of the same amendment with further argument as to why the amendment should be accepted. If, however, in resubmitting the amendment, significant alterations are made, the new submission is treated as a separate amendment after allowance requiring its own amendment after allowance fee.

19.03.07 Commissioner's withdrawal of Notice of Allowance

In the case where, after a Notice of Allowance has been sent to the applicant but prior to the patent being issued, the Commissioner has reasonable grounds to believe that the application does not comply with the *Patent Act* or *Rules*, the Commissioner will notify the applicant accordingly and returns the application to the examiner for further examination. The Notice will indicate why the application is not allowable. If the Final Fee has been paid, the Commissioner will refund it (subsection 30(7) of the *Patent Rules*). In this circumstance, prosecution of the application will continue and the application may be amended by the applicant.

19.03.08 Amendment after payment of the Final Fee

Generally, applications may not be amended by the applicant after the Final Fee has been paid (section 33 of the *Patent Rules*), although clerical errors may be corrected as provided by section 8 of the *Patent Act.*

19.03.09 Amendments after failure to pay the Final Fee

If an applicant fails to pay the Final Fee within the six-month period after the date of the Notice of allowance, the application will be deemed abandoned (see paragraph 73(1)(f) of the *Patent Act*).

Subsequent to abandonment, the applicant has 12 months within which the application

may be reinstated under subsection 73(3) of the *Patent Act*. In order to reinstate the application, the applicant must file a request for reinstatement along with the payment of the reinstatement fee and payment of the Final Fee. Should the applicant wish to amend the application at this stage, the amendment request must be made together with the request for reinstatement. The amendment will be considered with respect to acceptability upon receipt, and the application is subject to examination, pursuant to subsection 73(4) of the *Patent Act*. If the application is found to be allowable, it will advance directly to issuance since the Final Fee has already been paid.

19.03.10 Correction of minor errors

The Patent Office does not generally require correction of minor errors in the specification, such as obvious spelling errors, punctuation and letter inversions. If not corrected, such errors will appear in the printed copy of the patent. However, if the examiner is identifying other defects, minor errors may be pointed out at the same time in the examiner's report. Errors that are in any way deemed to be critical are objectionable, and must be corrected.

19.04 Acceptable Subject Matter

Section 38.2 of the *Patent Act* restricts amendments to the specification or drawings to matter reasonably to be inferred from the specification and the drawings as originally filed [1], no new subject matter may be introduced.

Matter pertaining to prior art with respect to the invention of the application may be added to the specification and the drawings. However, the applicant must acknowledge in the specification that any such matter is prior art, well-known or common general knowledge.

19.04.01 Petitions

Please refer to section 4.01.01 regarding restrictions on amendments to petitions.

19.05 Incomplete and Unsatisfactory Responses

Paragraph 73(1)(a) of the *Patent Act* provides for the abandonment of an application if the applicant does not reply in good faith to any requisition made by an examiner. An amendment that fails to address the defects in the application identified by the examiner, or any other requisition by the examiner, will result in the abandonment of the application (see chapter 20 on abandonment).

The Patent Office may consider that an applicant has failed to reply in good faith to an examiner's requisition if the applicant purposely attempts to mislead or to delay prosecution by:

(a) failing to provide a response to a requisition to correct all the defects identified under subsection 30(2) of the *Patent Rules* by the examiner, or by failing to make satisfactory amendments to avoid those objections;

(b) reintroducing claims to subject matter previously removed to overcome objections made by the examiner; unless the previously removed claims have since become permissible as a result of change of law or practice;

(c) adding informal or other obviously objectionable claims;

(d) failing to provide a response to a requisition for information under section 29 of the *Patent Rules*;

(e) failing to provide a certified copy and proper certification of a previously regularly filed application following a requisition under section 89 of the *Patent Rules*; or

(f) failing to include in the description the date of the original deposit within the International Depositary Authority (IDA) following a requisition under subsection 104.1 of the *Patent Rules*.

Under (a) above, a response does not have to present an amendment to overcome each identified defect but, where it does not, the response should specifically address each identified defect for which an amendment is not presented, indicating why

amendment is not necessary.

The procedures for the rejection of an amendment by the examiner are detailed in section 19.07 below.

19.06 Further Examination of Amended Applications

All applications that have been amended are subject to further examination. Any matter introduced by an amendment that is objectionable under the *Patent Act* or the *Patent Rules* will be identified to in an examiner's further requisition. Amended applications may also be subject to a further search of the prior art.

The above does not apply to amendments after the notice of allowance has been sent, since such amendments are refused on receipt if they are found to be unacceptable.

19.07 Unacceptable Amendments

Amendments to applications under examination will not be accepted in the following circumstances:

(a) The amendment introduces new subject matter into the specification or drawings which is not reasonably to be inferred from the specification and drawings as originally filed (subsections 38.2(2) and (3) of the *Patent Act*).

(b) The response to an examiner's requisition is not an attempt in good faith to advance the application to allowance and is therefore contrary to paragraph 73(1)(a) of the *Patent Act.*

(c) After a notice of allowance has issued, if an amendment after allowance fee is required and has not been paid (subsection 32(1) of the *Patent Rules*), or if the amendment adds new matter (subsections 38.2(2) and (3) of the *Patent Act*), necessitates a further search, or if the amendment causes the application in any way to not comply with the *Patent Act* or *Rules* (subsection 32(2) of the *Patent*

Rules).

(d) After the Final Fee has been paid (section 33 of the *Patent Rules*), unless the application has been withdrawn from issue or has been reinstated after abandonment due to non-payment of the Final Fee (subsection 73(4) of the *Patent Act*).

(e) After the expiry of the time for responding to a Final Action except where:

1. the rejection is withdrawn in accordance with subsection 30(5) of the *Patent Rules*;

2. the Commissioner is satisfied after review that the rejection is not justified and the applicant has been so informed;

3. the Commissioner has informed the applicant that the amendment is necessary for compliance with the *Patent Act* and *Rules*; or

4. by order of the Federal Court or the Supreme Court of Canada.

(f) The amendment introduces claims that are not patentable in view of lost conflict matter following a conflict procedure in accordance with section 43 of the *Patent Act*, as it read immediately before October 1, 1989 [2].

19.07.01 Procedure for rejecting new subject matter

When an amendment introduces new subject matter to an application contrary to subsections 38.2(2) and (3) of the *Patent Act*, the examiner will requisition the applicant to remove the new subject matter therefrom, and inform the applicant that the amendment is part of the application file and therefore has or will be open to public inspection with the application.

19.07.02 Procedure for replies not in good faith following a requisition to correct all the defects or to include the date of the International Depository Authority (IDA) in the description

When an examiner considers that a response to an action is not made in good faith following a requisition to correct all the defects under subsection 30(2) of the *Patent Rules,* or to include the date of the International Depository Authority (IDA) in the description under section 104.1 of the *Patent Rules*, the amendment is not accepted. The examiner, at the expiry of the time limit for the response, refers the file and the applicant's response to the Director of Patent Branch. An office letter will remind to the applicant that he or she has the opportunity to present a written argument to explain why the response should be considered a good faith attempt to respond to the examiner's requisition.

- If the argument is not convincing, the application will be deemed abandoned under paragraph 73(1)(*a*) of the *Patent Act* because of the applicant's failure to reply in good faith to the requisition within the required time [3].
- If the argument is convincing, normal prosecution is resumed, and applicant's response is considered by the examiner. The amendment may still not be accepted if new matter is present (section 19.07(a) of MOPOP).

19.07.03 Procedure for replies not in good faith following a requisition to provide a certified copy or information regarding prior art

A response is considered incomplete under the following circumstances::

(a) information requisitioned under subsections 29(1) and (2) of the *Patent Rules* dealing with the provision of prior art or the first publication of a foreign patent is not supplied, and the response is silent in respect to reasons for its absence as required by subsection 29(3) of the *Patent Rules*; or

(b) a certified copy or certification of the actual date of filing of a previously regularly filed application following a requisition under section 89 of the *Patent Rules* has not been provided.

the applicant will be notified by:

- a courtesy communication, requesting the information or reasons why the information is not available before the action due date, if there is still time to respond before the action due date, or

- a notice of abandonment under section 73(1)(a) of the *Patent Act* if the action due date has already passed.

If a response is incomplete because information requisitioned under subsections 29(1) and (2) of the *Patent Rules* dealing with the provision of prior art or the first publication of a foreign patent is not supplied or incomplete, but the explanation for its absence refers to a subsequent or additional submission, the examiner will normally issue another report only to requisition to comply fully with section 29 of the *Patent Rules*. The applicant must then provide the information or state why it is not available as required by subsection 29(3) of the *Patent Rules.*

19.07.04 Procedures for unacceptable amendments after the Notice of Allowance

If the amendment after allowance fee is required but is not submitted with the amendment, the Patent Office will notify the applicant that the required fee must be submitted before the amendment can be considered.

When the examiner decides that an amendment after allowance does not comply (see section 19.03.06 of MOPOP), the applicant will be so advised by the examiner by letter. The letter will indicate to the applicant those parts of the amendment that are objectionable. At this point the applicant may:

- Pay the Final Fee to proceed to issuance with the application in its version before the amendment after allowance, or;

- Resubmit a new amendment after allowance (with a second amendment after allowance fee) absent of the objectionable matter, or;
- Not pay the Final Fee and reinstate the patent application as explained in section 19.03.08 of MOPOP.

19.07.05 Procedure for refusal of amendment after the Final Fee is paid

The Patent Office will notify the applicant that the application is scheduled to issue and cannot be amended.

Endnotes for Chapter 19

1 Re: Application No. 139,723 (Patent No. 1,029,723) [1977] 51 C.P.R. (2d) 95 at 103
Commissioner's Decision No. 145, Application No. 47327 (Patent No. 944,370) [1973]
Commissioner's Decision No. 904, Application No. 315073 (Patent No. 1,149,093) [1981]
Commissioner's Decision No. 938, Application No. 245193 (Patent No. 1,156,966) [1982]

2 Re: Application No. 100,575, [1975] 36 C.P.R. (2d) 283 at 284

3 Commissioner's Decision No. 589, Application 211,920 (Patent No. 1,075,521) [1979]

Chapter 20
Time limits, withdrawal, abandonment and lapse

20.01 Scope of this chapter

This chapter outlines Patent Office policy respecting time limits, extensions of time, withdrawal of applications, abandonment of applications and the lapse of patents. The remedial procedures available to reinstate abandoned applications are also detailed.

20.02 Time limits

The following paragraphs give the time limits prescribed by the *Patent Act* or the *Patent Rules* regarding patent applications and patents.

20.02.01 Withdrawal of an application

A patent application may be withdrawn at any time by written notice from the applicant or the authorized correspondent. An application which is withdrawn more than two months before the expiry of the confidentiality period will not be open to public inspection (subsection 10(5) of the *Patent Act* and section 92 of the *Patent Rules*). Applications withdrawn during the last two months of the confidentiality period will be laid open to public inspection unless there is time to stop the technical preparations to open the application to public inspection (Sections 92 and 146 of the *Patent Rules*).

Applications filed prior to October 1, 1989 may be withdrawn at any time by the applicant or the authorized correspondent and will never be opened to public inspection.

20.02.02 Request for priority

For applications filed after October 1, 1996 a request for priority must be received by the office within four months of the filing date of the application (the subject application). The applicant must provide the Commissioner with the date and country of filing of each previously regularly filed application on which the request for priority is based, before

the expiry of the four- month period after the filing date of the subject application and must also provide the Commissioner with the application number of each previously regularly filed application on which the request for priority is based, before the expiry of the later of the four-month period after the filing date of the subject application and the twelve-month period after the date of filing of the previously regularly filed application (section 88 of the *Patent Rules*).

For applications filed in the period beginning on October 1, 1989 and ending the day before October 1, 1996 a request for priority must be received by the office within six months of the filing date of the application(the subject application). The applicant must also provide the Commissioner with the date and country of filing and the application number of each previously regularly filed application on which the request for priority is based before the expiry of the six-month period after the filing date of the subject application (section 142 of the *Patent Rules*).

The time limit for making a request for priority is not extendable in either of the two situations set forth above.

A request for priority may be withdrawn at any time before a patent is issued. If the applicant withdraws a request for priority before the expiry of the confidentiality period it may be possible to delay the laying open of the application to public inspection (subsection 10(4) of the *Patent Act*). The withdrawal must be made within sixteen months of the filing date of the priority application, or a later date if the technical preparations to open the application to public inspection can be stopped (sections 91 and 145 of the *Patent Rules*). The application will be laid open to public inspection at the end of the new confidentiality period (eighteen months from the Canadian filing or eighteen months from the earliest date of the next earliest previously regularly filed application on which a request for priority is based). See chapter 7 on priority for more information.

Applicants of applications filed prior to October 1, 1989 may request priority at any time.

20.02.03 Filing a divisional application

A divisional application must be filed before issue of the original application (parent application) according to Subsection 36(2) of the *Patent Act*. If the parent application

becomes abandoned, the divisional application must be filed before the expiration of the time limit for reinstatement of the parent (Subsection 36(3) of the *Patent Act*).

Time limits for filing a divisional application are not extendable.

20.02.04 Completing the application

Non-PCT applications filed on or after October 1, 1996, which do not meet the requirements of subsection 27(2) of the *Patent Act* at the date of filing, are deemed to be incomplete and the office will make every effort to inform the applicant of the reasons for noncompliance by means of a courtesy letter. The letter will specify a time limit prior to which the application can be completed free. The time limit will be a date fifteen months from the filing date, or from the date of the earliest previously regularly filed application on which a request for priority is based, if any. The purpose of not requiring a fee for completing an application during the above period is to encourage applicants to provide the Patent Office with electronically scannable pages for TECHSOURCE and to ensure that all documents listed in (a) to (i) in the previous paragraph arrive at the Patent Office in a timely manner for laying open to public inspection under section 10 of the *Patent Act*.

If at the expiration of a time period of fifteen months from the filing date, or the priority date, if any, the application is still not complete, a Commissioner's Notice will be sent under subsection 94(1) of the *Patent Rules*. The Notice will requisition the applicant to complete the application within a period ending the later of three months after the date of the notice and twelve months after the filing date of the application. Completing the application after the notice has been received will require the payment of the completion fee specified in Item 2 of Schedule II of the *Patent Rules*. Failure to complete the application or to pay the fee within the time period specified in the notice will result in abandonment of the application.

Non-PCT applications filed before October 1, 1996, that are not complete at filing must meet the completion requirements of subsection 148(1) of the *Patent Rules* and pay the completion fee within twelve months of filing in order to avoid abandonment(see chapter 5 for more information on completion requirements).

Completion requirements and time limits for PCT applications depend on whether

Canada was designated or designated and elected on the international application (sections 58 and 62 of the *Patent Rules* and Section 16 of the Canadian Patent Cooperation Treaty Regulations as they read immediately before October 1, 1996). Chapter 22 of this manual details all the requirements and time limits for PCT applications including national phase entry.

The time limits for completing an application are not extendable (subsections 62(3), 94(3),and 148(2) of the *Patent Rules*).

20.02.05 Appointment of a patent agent

Whenever a patent agent must be appointed pursuant to Section 23 of the *Patent Rules*, the Patent Office sends a notice to the applicant. A patent agent must be appointed within three months from the date of the notice. The three-month time limit may be extended under Section 26 of the *Patent Rules*.

20.02.06 Deposits of biological materials

Where the applicant wishes to supplement the description of the invention with a deposit of biological material under Section 38.1 of the *Patent Act*, the deposit must be made with an International Depositary Authority (IDA). For applications filed on or after October 1, 1996, the deposit with an IDA must be made on or before the Canadian filing date. The name of the IDA, the date of the deposit, and the accession number given by the IDA, if not already part of the description at the time of filing, must be provided before the application is open to public inspection under Section 10 of the *Patent Act* (Subsections 104(1) and (2) of the *Patent Rules*). For applications filed before October 1, 1996, the deposit must have been made on or before the filing date of the application either in an IDA or in some other depositary from which samples of the deposit can be obtained by the public. If the deposit was not made with an IDA, the applicant must deposit a sample with an IDA on or before October 1, 1997. Where an application filed before October 1, 1996 (or a patent which may have issued on the basis of such an application) does not already contain the following information, it must be provided on or before January 1, 1998, or before the expiry of the 18 months confidentiality period for the application, whichever is the later: the name of the IDA, the date of the original IDA deposit, the accession number given by the IDA, the name of any non-IDA depositary (if a deposit made before the filing date was not in an IDA) and

the date of the deposit in the non-IDA depositary (Section 160 of the *Patent Rules*).

An applicant may file a notice with the Commissioner that a sample of a deposit referred to in an application be furnished only to an independent expert nominated by the Commissioner. This "expert solution" applies until either a patent has issued on the basis of the application or until the application is withdrawn, refused or abandoned and no longer subject to reinstatement. For an application filed on or after October 1, 1996, a notice requesting that access be restricted must be filed before the application is open to public inspection. For an application filed before October 1, 1996, the notice must be filed on or before January 1, 1998, or before the expiry of the confidentiality period for the application, whichever is the later (subsections 104(4) and 160(4) of the *Patent Rules*).

The time limits for deposits are not extendable (subsections 104(5) and 160(5) of the *Patent Rules*).

For full details on deposits of biological materials, see Chapter 17 of this manual.

20.02.07 Request for examination

For applications filed on or after October 1, 1996 an applicant must request examination and pay the prescribed fee pursuant to subsection 35(1) and paragraph 73(1)(d) of the *Patent Act* within five years of filing the application (subsection 96(1) of the *Patent Rules*). The time limit for requesting examination on a divisional application with a filing date (parent's filing date) on or after October 1, 1996 is either five years from the filing date of the parent or six months after the date on which the divisional application was actually filed, whichever date is later (subsection 96(2) of the *Patent Rules*).

For applications filed before October 1, 1996, an applicant must request examination and pay the fee within seven years of filing (subsection 150(1) of the *Patent Rules*). The time limit for requesting examination on a divisional application with a filing date (parent's filing date) before October 1, 1996 is seven years from the filing date of the parent or six months after the date on which the divisional application was actually filed, whichever date is later (subsection 150(2) of the *Patent Rules*).

The time limits for requesting examination set out above are not extendable (subsections 96(3) and 150(3) of the *Patent Rules*).

Where the Commissioner requires the applicant to make a request for examination under subsection 35(2) of the *Patent Act*, a notice will be sent specifying a three month time limit (sections 25, 97 or 151 of the *Patent Rules*). The time limit of that notice may be extended according to section 26 of the *Patent Rules*, but cannot extend beyond the five-year or seven-year time limit for requesting examination under section 96 or 150 of the *Patent Rules*.

20.02.08 Response to a requisition of the Commissioner or an examiner

Where the Commissioner makes a requisition of an applicant pursuant to section 25, section 97 or section 151 of the *Patent Rules* the time limit for a response is three months from the date of the notice. The three-month time limit may be extended under section 26 of the *Patent Rules*.
An examiner's requisition will specify a six month or shorter time limit (paragraph 73(1)(a) of the *Patent Act* and subsection 30(2) of the *Patent Rules*). The six-month time limit cannot be extended. A shorter time limit may be extended under section 26 of the *Patent Rules*, but cannot be extended beyond six months.

20.02.09 Appeals to the Federal Court

An appeal of a Commissioner's Decision to the Federal Court must be taken within three months of the date of mailing of the Commissioner's Decision to the applicant (subsection 18(2) of the *Patent Act*). The time limit for appeal may be extended under section 27 of the *Patent Rules*.

Where an application has been refused by the Commissioner pursuant to section 40 of the *Patent Act*, an appeal to the Federal Court must be initiated within six months of the mailing of the Commissioner's Decision to the applicant (section 41 of the *Patent Act*). This time limit cannot be extended.

20.02.10 Reinstatement of abandoned applications

Applications which have become abandoned under subsections 73(1) or (2) of the

Patent Act may be reinstated within the twelve-month period from the date of abandonment (sections 98 and 152 of the *Patent Rules*). Occasionally applications may become abandoned for more than one reason. Where an application is abandoned for more than one failure to act, the applicant must comply with section 98 or 152 of the *Patent Rules* for each failure to act within twelve months of the date the application was deemed to be abandoned for that failure (sections 98 and 152 of the *Patent Rules*).

The time limit for reinstatement may be extended under section 26 of the *Patent Rules* provided that the request for the extension of time is made before the period for reinstatement expires. If the applicant takes no action prior to the expiry of the twelve-month reinstatement period, the application cannot be reinstated. No retroactive extensions are available.

20.02.11 Final Fee

Where an applicant receives a notice of allowance, the time limit for the payment of the final fee is set out in the notice and shall be six months from the date of the notice (paragraph 73(1)(f) of the *Patent Act* and subsection 30(6) of the *Patent Rules*). The time limit for payment of the final fee is not extendable.

20.02.12 Reissue

A patentee may apply for a reissue of a patent within four years from the issue of the original patent (subsection 47(1) of the *Patent Act*). This time limit is not extendable.

20.02.13 Maintenance Fees

The maintenance fees due and the time limits for their payments for patent applications are given in Item 30, Part VI of Schedule II of the *Patent Rules* (sections 99 and 154 of the *Patent Rules*).

Any or all of the maintenance fees for a particular application or a patent resulting from that application may be paid in advance.

The maintenance fees for divisional applications are due on the same dates as for the

parent application. Where maintenance fees are owing at the time of filing a divisional application, all of the fees which would have been due had the divisional application been filed on the filing date of the parent application must be paid at the time of filing of the divisional to avoid immediate abandonment (subsections 99(3) and 154(3) of the *Patent Rules*).

Maintenance fees for patents depend on the filing date of the applications from which they issued. For patents issued on the basis of an application filed after October 1, 1989, the maintenance fees and time limits are set out in Item 31, Part VI of Schedule II of the *Patent Rules* (sections 100, 101, 155 and 156 of the *Patent Rules*). Maintenance fees and time limits for patents issued after October 1, 1989 on the basis of an application filed before October 1, 1989 are given in Item 32, Part VI of Schedule II of the *Patent Rules* (subsections 182(1) and (3) of the *Patent Rules*).

Time limits for payment of maintenance fees are not extendable.

20.03 Time limits expressed in "months"

Applications become abandoned or reinstated if certain actions are taken or not taken within definite time limits usually expressed in a certain number of months. When a requisition is made for an action to be taken within a fixed number of months and the final month has no date the same as the date of the requisition, then the last day of such month is the date the action must be completed. Thus an examiner's requisition with a time limit of six months which is issued on August 29, 30, or 31 must be replied to by February 28 (or February 29 in leap years). Similarly a requisition issued on March 31 setting three months for reply requires a response by June 30.

20.04 Time limits expiring on a dies non

When the last day upon which an applicant or a patentee may act on an application or patent falls on a day when the Patent Office is closed for business the action may be taken on the next day the Patent Office is open (section 78 of the *Patent Act*). If the failure to act sets up new time limits (such as a reinstatement period), the new period starts to run from the extended date, rather than from the original date when the action

was due. For example, if a notice of allowance is issued on June 25, 1996 the final fee is due on December 27, 1996 (the Patent Office being closed December 25 and 26). If the final fee is not paid on or before December 27, 1996 the application is deemed to be abandoned on December 27, 1996 and can be reinstated by requesting reinstatement and paying the appropriate fees on or before December 29, 1997 (December 27, 1997 being a Saturday).

The Patent Office is closed for business on all Saturdays and Sundays as well as on the following designated holidays or, if these designated holidays fall on a weekend, the first normal working day following the weekend:

New Year's Day
Good Friday
Easter Monday
Victoria Day
St-Jean Baptiste Day
Canada Day
Labour Day
Thanksgiving
Remembrance Day
Christmas Day
Boxing Day

It should be noted that the Patent Office is not closed on the 1st Monday in August.

20.05 Extensions of time

The time limits discussed in Section 20.02, above, which are indicated as extendable may be extended by the Commissioner (subsection 26(1) and subsection 27(1) of the *Patent Rules*). **The applicant must apply for the extension of time before the expiry of original time limit** and pay the extension fee set out in Item 22, Part IV of Schedule II of the *Patent Rules*. Where the Commissioner is satisfied that the circumstances justify the extension, an extension will be granted, and the applicant notified by letter. The applicant will also receive an office letter if the extension of time is refused. While no affidavit is required, the Commissioner requires reasons why the

applicant is unable to complete the required actions within the time period originally set. Unreasonable numbers of extensions or unreasonable lengths of extensions will not be granted by the Commissioner.

20.06 Withdrawal of an application by applicant

An application may be withdrawn at any time. If an application which has never been opened to public inspection is withdrawn more than two months before expiry of the confidentiality period, it will not be opened to public inspection (subsection 10(5) of the *Patent Act* and sections 92 and 146 of the *Patent Rules*). Where an application is withdrawn during the last two months of the confidentiality period, the application will be laid open to public inspection unless there is sufficient time to stop the technical preparations to open the application to public inspection. A request for withdrawal must be in writing. Any fee which has been paid prior to the date of withdrawal is not refundable except under subsections 4(3) and (4) of the *Patent Rules*. An application which is withdrawn after being opened to public inspection, will remain in the search files of the Patent Office.

20.07 Abandonment

An application is deemed to be abandoned under section 73 of the *Patent Act* if the applicant does not

(a) reply in good faith to any requisition of an examiner within the time limit specified;

(b) complete the application and pay the completion fee within the time limit specified;

(c) pay the prescribed maintenance fees within the time limit specified;

(d) make a request for examination and pay the prescribed fee within the time limit specified;

(e) make a request for examination and pay the prescribed fee, when required to do so by the Commissioner, within the time limit specified;

(f) pay the final fee within the time limit specified; or

(g) comply with any requisition of the Commissioner within the time limit specified (section 25 of the *Patent Rules*).

The time limits (or extended time limits) specified for the above actions are given in Section 20.02 of this manual.

An application may become abandoned for more than one failure to act as above (e.g. an application may become abandoned for failure to respond to an examiner's requisition and also be deemed abandoned for failure to pay a maintenance fee at a later date during the abandoned period for failure to respond to the examiner's requisition).

A notice of abandonment will normally be sent by the Office when an application is deemed abandoned. However, although a notice of abandonment (notice that the patent is about to lapse) has been sent in a particular case, it should not be assumed that notice will be sent in every case. Such notices are sent as a courtesy only and the Patent Office takes no responsibility for failure to send a notice in a particular situation. If an application is abandoned for more than one failure to act, additional notices will be sent for each failure during the time period within which the applicant can reinstate the application.

20.08 Reinstatement

Where an application becomes abandoned under subsection 73(1) or (2) of the *Patent Act*, the applicant may reinstate the application according to section 73(3) of the *Patent Act* and section 98 or 152 of the *Patent Rules* within twelve months of the date the application was deemed abandoned by;

i) making a request for reinstatement,
ii) taking the action that should have been taken in order to avoid the

abandonment, and

iii) paying the fee set out in Item 7, Part I of Schedule II of the *Patent Rules*.

Where an application is abandoned for more than one failure to act, the applicant must take the above actions for each failure to act within twelve months of each failure (sections 98 and 152 of the *Patent Rules*).

For example, an application may become abandoned on two grounds if applicant fails to respond to an examiner's requisition within the six month time limit and also fails to pay a maintenance fee that falls due during the time when the application was abandoned; for that the application to be reinstated, the applicant must request reinstatement, respond to the examiner's requisition, submit the maintenance fee and submit two reinstatement fees within twelve months of the abandonment for failing to respond to the examiner's requisition. If the applicant attempts to reinstate without paying the maintenance fee and the second reinstatement fee, the application will remain abandoned (for failure to pay the maintenance fee) but the time limit for reinstatement will be extended to the end of the twelve-month period from the date the maintenance fee was due. If the period for reinstatement has expired before payment of the reinstatement fee or before a request for an extension of the reinstatement period is made, the application can never be reinstated.

20.09 Lapsed patent

A lapsed patent is one which no longer confers any patent rights to the patentee because the appropriate maintenance fees have not been paid.

Maintenance fees for patents issued on the basis of applications filed after October 1, 1989 are payable for each one-year period between the second and twentieth anniversaries of the date of filing of the application in Canada (sections 100, 101, 155, and 156 of the *Patent Rules* and Item 31, Part VI of Schedule II of the *Patent Rules*).

Maintenance fees are due before the first day of each of the one-year periods they cover. For example, payment is due on or before the eleventh anniversary for the one-year period ending on the twelfth anniversary.
Any or all of the maintenance fees for a particular application or a patent resulting from that application may be paid in advance.

Late payment of the maintenance fees for patents are also accepted by the office if the payment is made within the one-year period the fee covers and the prescribed late payment fee is also paid. For example, the maintenance fee for the one-year period ending on the seventeenth anniversary of the filing date can be made, with the additional fee for late payment, on or before the seventeenth anniversary date. The time limits for payment of maintenance fees for patents cannot be extended (sections 102 and 157 of the *Patent Rules*).

Maintenance fees for patents issued on or after October 1, 1989 on the basis of an application filed before October 1, 1989 are payable for each one-year period between the second and the seventeenth anniversaries of the date on which the patent was issued. Section 182 of the *Patent Rules* and Item 32, Part VI of Schedule II of the *Patent Rules* specify the maintenance fees payable and the dates on which the payments are due. Payments are due before the first day of the one-year period the fee covers, or on or before the last day of the one-year period the fee covers if the late payment fee is also paid.

Any or all of the maintenance fees for a particular application or a patent resulting from that application may be paid in advance.

The time limits specified in Part VI of Schedule II of the *Patent Rules* cannot be extended (section 182(7) of the *Patent Rules*).

A patent is deemed to have lapsed at the expiration of the time specified in Schedule II of the *Patent Rules* (subsection 46(2) of the *Patent Act*). **A lapsed patent cannot be revived.**

Notification of lapsed patents will be published in the Canadian Patent Office Record.

20.10 Jurisprudence

The following decisions of the courts are of importance in considering the subject matter of this chapter:

<u>lapse</u>

Zeneca v Canada	66 CPR (3d)	169	1996

Chapter 21
Final Action practice

21.01 Introduction

When the prosecution of a patent application has progressed to the point where the examiner has reasonable grounds to believe that the application does not comply with the *Patent Act* or the Rules in respect to one or more of the defects referred to in previous requisitions and that the applicant will not amend the application to comply with the *Patent Act* and the Rules, the examiner may reject the application in a Final Action. Section 30 of the *Patent Rules*, as it appears in Part 1 of the Regulations defines the final action requirements and applies to all pending applications regardless of their filing date.

21.02 The Final Action report

A final action is issued under the provisions of subsection 30(4) of the *Patent Rules* and the action must bear the notation "Final Action" or "Décision Finale".

The report must indicate the outstanding defects and must requisition the applicant to amend the application in order to comply with the *Patent Act* and the Rules or to provide arguments as to why the application does comply, within the six-month period after the requisition is made or within any shorter period established by the Commissioner in accordance with paragraph 73(1)(a) of the *Patent Rules*.

A final action is not written unless the examiner has made a previous requisition on the same grounds. If, in addition to the earlier objections, new objections on fresh grounds are being made, the action is not made final.

The report identifies which claims are allowable and indicates clearly what is objectionable in the application. If the rejection is based on prior art, the examiner will clearly indicate which claims are considered to lack novelty or are rendered obvious by the references cited in the action. The report deals with any differences between the claims and the teaching of the prior art and indicate why the invention claimed fails to

show any advance of an inventive nature over the applied art and common general knowledge in the art.

If the rejection is based on any other contravention of the *Patent Act* or Rules, the report clearly identifies the sections of the *Patent Act* and Rules which have been contravened and gives the reasons therefor.

The final action report must be comprehensive and deal with every grounds for which the application is considered to be defective. The appeal process is restricted to the particular issues discussed in the final action and there is no further opportunity for the examiner to make objections which may have been missed in the final action. Similarly there is no opportunity for the applicant to amend the application other then to make any revisions required by a Commissioner's decision on the patentability of the case.

All final actions are posted by registered mail.

21.03 Satisfactory Responses

Where in accordance with subsection 30(4) of the *Patent Rules* the applicant amends the application or provides arguments and the examiner has reasonable grounds to believe that the application complies with the *Patent Act* and the *Patent Rules*, the Commissioner notifies the applicant that the rejection is withdrawn and that the application has been found allowable (subsection 30(5) of the *Patent Rules*).

21.04 Unsatisfactory Responses

Where the rejection is not withdrawn pursuant to subsection 30(5) of the *Patent Rules* because the examiner is not satisfied that an amendment and/or argument submitted in the applicant's response is sufficient to overcome the rejection, the application is forwarded to the Patent Appeal Board (PAB) to be reviewed and the applicant is given the opportunity to be heard.

21.05 Patent Appeal Board

The Patent Appeal Board (PAB) consists of one or more senior members of the Patent Office who have not participated in the examination of the application under review. The Board reviews the grounds for rejection in final actions and holds hearings under section 30(6) of the *Patent Rules* when requested by applicants and advises the Commissioner on these matters.

21.06 Review by PAB

In any instance when the examiner decides that a response to a final action does not overcome the grounds of the action, in whole or in part, the application is forwarded to the PAB. The examiner prepares a summary of the reasons why the response does not overcome the rejection for the Board's consideration. The PAB informs the applicant that the application has been submitted for its consideration. The PAB advises the applicant that applicant may request a hearing to develop a fuller statement of the reasons for contending that the application is not open to objection on the grounds stated by the examiner. At this stage, the applicant is not entitled to submit further amendments to the application (section 31 of the *Patent Rules*) and must restrict any arguments to the issues raised in the final action and any amendment which was submitted to the examiner in response to that action. After reviewing the facts, the PAB presents its findings to the Commissioner.

21.07 Commissioner's Decision

The Commissioner reviews the findings of the PAB and if satisfied that:

(a) there is no patentable subject matter in the application, will refuse the application under section 40 of the *Patent Act* and will inform the applicant of the reasons therefor;

(b) the examiner's rejection was not justified, the application will be returned to the examiner for further prosecution (subsection 31(b) of the *Patent Rules*, or

(c) certain amendments are necessary for compliance with the *Patent Act* or the *Patent Rules*, the applicant will be informed of the required amendments and the reasons therefor and will be given a three month period to effect the changes. Should the applicant not amend the application accordingly it will be refused under section 40 of the *Patent Act*.

The Commissioner's decision will provide the reasons why he arrived at that particular decision and will justify his findings with respect to the *Patent Act*, *Patent Rules* and pertinent jurisprudence. Such decisions form Patent Office policy and provide precedence for the guidance of applicants and patent examiners. The original signed copy of the decision is sent by registered mail to the applicant or agent. A Commissioner's decision becomes part of the prosecution file and therefore is open to public inspection. Commissioner's decisions (CD), grouped according to the grounds of objection in the Final Action, are available in the Patent Office. A notice of every CD will be published in the CPOR along with a summary except for applications filed prior to October 1, 1989 that were subsequently refused by the Commissioner. Such CD's may be published with the permission of the applicant.

21.08 Amendments subsequent to a Final Action

A rejected application may not be amended after the expiry of the time for responding to the examiner's requisition made pursuant to subsection 30(4) of the *Patent Rules* except

(a) where the rejection is withdrawn in accordance with subsection 30(5) of the *Patent Rules*;

(b) where the Commissioner is satisfied after review that the rejection is not justified and the applicant has been so informed; or

(c) where the Commissioner has informed the applicant that the amendment is necessary for compliance with the *Patent Act* or the Rules; or

(d) by order of the Federal Court or the Supreme Court of Canada.

In the case of (a) above, where the examiner withdraws the final action under subsection 30(5) of the *Patent Rules*, the normal prosecution resumes and the application is allowed by the examiner, the grounds for rejection having been overcome. Any further amendment of the application by the applicant must take the form of an amendment after allowance and is subject to the conditions set forth for such amendments in 19.08.06 of this Manual.

In the case of (b) above, where the Commissioner is satisfied that the rejection was not justified, the applicant is so notified and the application is returned to the examiner and normal prosecution resumes. The application is normally allowed at this stage but may be amended voluntarily by the applicant (subsection 31(b) of the *Patent Rules*).

In the case of (c) above, where the Commissioner has informed the applicant that an amendment of the application is necessary for compliance with the *Patent Act* or the *Patent Rules*, the applicant must make the amendment required by the Commissioner but no further amendment will be accepted (subsection 31(c) of the *Patent Rules*).

In the case of (d) above where the applicant has appealed a Commissioner's refusal of an application under section 40 of the *Patent Act* to the Federal Court or the Supreme Court of Canada, the application may be amended in accordance with the decisions of those Courts (subsection 31(d) of the *Patent Rules*).

21.09 Appeals

If the Commissioner refuses an application under section 40 of the *Patent Act*, the applicant in accordance with section 41 of the *Patent Act*, may appeal the refusal to the Federal Court Trial Division. The Federal Court Trial Division may in turn, be appealed to the Federal Court of Appeal and, with leave, the Supreme Court of Canada.

Whenever an appeal to the Federal Court is lodged, the applicant must serve Notice of Appeal on the Commissioner. The original Notice is placed in the Patent Office file of the application. Since the Federal Court Trial Division's decision may be further appealed, no further action is taken in the Patent Office until it has been verified that the appeal process has been terminated.

21.10 Prosecution after Court proceedings

The examiner takes action in accordance with the final judgment of the courts.

Chapter 22
Patent Cooperation Treaty (PCT)

22.01 General description of the PCT

The PCT is a multilateral treaty among States, concluded in 1970 and entered into force on January 24, 1978. Canada became bound by the PCT on January 2, 1990.

The PCT establishes a system of international cooperation under which an applicant can initiate patent protection procedures in several countries by filing **one** "international application". The PCT is a patent filing procedure only and does not provide for the granting of patents. The granting of patents is the responsibility of each individual member countries (Contracting States).

Under PCT, Canadians seeking patent protection in several countries can file an international application, in a standardized format in either French or English, in the Patent Office. Filing an international application has the same effect as if a regular national application was filed in each member countries where the applicant desires patent protection.

As of January 1st, 2004, PCT had 123 Contracting States.

A list of the Contracting States is available from the World Intellectual Property Organization (WIPO) Web site at:

http://www.wipo.int/pct/guide/en/

Further useful material is contained in the Treaty itself, in the PCT Applicant's Guide, in the PCT Receiving Office Guidelines, PCT Search Guidelines and PCT Preliminary Examination Guidelines, and in the Administrative Instructions. The PCT Applicant's Guide may be consulted in the CIPO library. All these publications are available from the World Intellectual Property Organization (WIPO) Web site at:

http://www.wipo.int/pct/en/index.html

The PCT Applicant's Guide can be found under "PCT Filing (Forms, Fees, etc.)". The PCT Treaty, Regulations, Administrative Instructions, PCT Receiving Office Guidelines, PCT International Search Guidelines and PCT International Preliminary Examination Guidelines can be found under "PCT Legal Texts".

22.01.01 PCT definitions

The following terms frequently used in the PCT text are defined as follows:

a) **Receiving Office** means the office where the nationals or residents of a PCT contracting state can file international applications. For Canadian nationals, applications may be filed with the Patent Office or the International Bureau;

b) **International Bureau (IB)** means the International Bureau of the World Intellectual Property Organization (WIPO) in Geneva;

c) **Contracting States** means the states party to the PCT which include almost every industrialized country of the world;

d) **Designated Office** means the national office designated by an applicant under Chapter I;

e) **Elected Office** means the national office elected by an applicant under Chapter II;

f) **International Searching Authority (ISA)** means one of the offices responsible for establishing International Search Reports (ISR) and the first written opinion on patentability by the ISA; and

g) **International Preliminary Examining Authority (IPEA)** means the office that carries out the international preliminary examination and the preparation of International Preliminary Reports on Patentability (IPRP [Chapter II]) under Chapter II.

A list of the ISA and IPEA States is available from the World Intellectual Property Organization (WIPO) Web site at ("X" in columns D and E):

http://www.wipo.int/pct/guide/en/

22.02 Usefulness of the PCT for applicants

Under the PCT, an applicant files a single application which designates a number of states or regions where protection is sought. The effect of filing an international application is equivalent to filing a separate application in each of the designated states/regions. Additionally, the PCT provides an International Search Report (ISR) and International Preliminary Report on Patentability (IPRP) for each international application. The ISR and IPRP provide the applicant with invaluable information to evaluate the likelihood of obtaining patents in the designated states or regions.

If an applicant decides to continue the international application to obtain national (or regional) patents, he or she can wait until the end of the 30th month (31st month in some states or regions) after the filing of the international application (or of an earlier application for which priority is claimed). The following states are exceptions (as of July 2004):

Table 22.1: Transitional Reservation Countries under PCT Article 22

State	Time limit for National Phase Entry under PCT Article 22(1)	Regional patent alternative
CH – Switzerland	20 months	EPO – 31 months
FI – Finland	20 months	EPO – 31 months
LU – Luxembourg	20 months	EPO – 31 months
SE – Sweden	20 months	EPO – 31 months
TZ – United Republic of Tanzania	21 months	ARIPO – 30 months
UG – Uganda	21 months	ARIPO – 30 months
ZM – Zambia	20 months	ARIPO – 30 months

Updated information regarding this list of exceptions, is available from the World Intellectual Property Organization (WIPO) Web site at:

http://www.wipo.int/pct/en/texts/reservations/res_incomp.pdf

Notwithstanding the above noted list of countries in table 22.1, it is noted that all those remaining states are covered by a regional designation, i.e. either under an African or European regional designation. Therefore, although these countries are the only

remaining designated Offices that have not withdrawn their notification of incompatibility, in effect, applicants in these remaining countries can always enter the regional phase within the time limit of 31 months under PCT Article 22 (3). That is to say, the thirty-month (or 31 month) time limit for entry into the national or regional phase is now possible in respect to ALL PCT contracting states.

The applicant may optionally request an international preliminary examination resulting in an International Preliminary Report on Patentability by the IPEA (IPRP [Chapter II]). If the international preliminary examination is requested before the end of 19 months after the filing of the international application or of an earlier application for which priority is claimed, the applicant may delay the national phase of patent prosecution for the Transitional Reservation Countries (see Table 22.1 above) by 10 months.

The deferral of the entry into the National Phase gives applicants time to consider the patentability opinion obtained in the International Preliminary Report on Patentability (IPRP) and to decide whether to start costly patent granting procedures in foreign countries. The translation into other languages, payment fees in foreign currencies, and the appointment of foreign patent agents, all costs associated with filing separate applications, is postponed. It also provides the applicant with more time to find a licensee or a partner before entering in the costly national/regional phases.

A table of Chapter I and II time limits for each state/region is available from the World Intellectual Property Organization (WIPO) Web site at:

http://www.wipo.int/pct/en/index.html

Follow the link on “Time Limits for Entering National/Regional Phase Under PCT Chapters I and II...”

When the international preliminary examination is demanded, a written opinion during the international examination process can be drafted from the first written opinion by the ISA, if the IPEA considers that it is still relevant.

22.03 The international phase for processing an international patent application

International Phase

i) **Filing of the international application:** The applicant files a single international application in a single language accepted by a Receiving Office and pays the prescribed fees to this Receiving Office. That application has the effect of a regular national application in all designated states (PCT Contracting States) where protection is sought.

ii) **International Search Report:** After conducting a prior art search, the ISA must establish an International Search Report and a first written opinion before the expiry of 16 months from either the priority date of the international application, or the international filing date if no priority is requested.

iii) **Publication of international applications:** The IB publishes the international application, any amendments, and the search report on the "publishing Tuesday" (WIPO publishes applications on alternate Tuesdays) following the expiry of the 18-month period from either the priority date of the international application, or the international filing date, if no priority is requested.

v) **International Preliminary Report on Patentability (IPRP):** The applicant has the option to demand an international preliminary examination under Chapter II of the Treaty (which postpones the entry to the national phase, before the elected Offices for the Transitional Reservation Countries listed in table 22.1 of MOPOP, which results in an International Preliminary Report on Patentability prepared by the IPEA (IPRP [Chapter II]). When the international preliminary examination is not demanded, the Internal Bureau issues an International Preliminary Report on Patentability based on the first written opinion on patentability by the ISA (IPRP [Chapter I]) and optionally with comments on this opinion by the applicant. While the designated or elected offices are not bound to follow the conclusion of the IPEA or ISA, the report contains a good indication of the chances of obtaining the desired protection for the invention.

22.04 Processing by the Receiving Office

The Receiving Office carries out the following functions:

a) receives the international application and the related fees and notifies the applicant of the receipt of the international application indicating the date of actual receipt and the international application number e.g., PCT/CA2004/123456 (see PCT Rule 20.5(c) and PCT Gazette No. 47/2001, November 22, 2001, pp. 21585 and 21586).

b) checks the international application to determine whether it meets the requirements prescribed by the PCT (Article 11 and Rule 11 of the PCT) as to form and content (the checks performed by the Receiving Office are of a formal nature and do not consider the substance of the invention);

c) communicates with the applicant in order to obtain corrections where the international application does not meet certain requirements as to fees, form and content;

d) accords the international filing date, where possible; and

e) transmits copies of the international application and other related documents to the ISA and to the IB.

22.04.01 Requirements to obtain an international filing date

For a PCT application filed in Canada, the Receiving Office (CIPO) must accord as the "international filing date" the date of receipt of the international application provided that at the time of receipt:

a) at least one of the applicants is a resident or national of Canada;

b) the international application is in English or French (only one copy is necessary); and

c) the international application contains at least the following elements:

(i) an indication that it is intended as an international application;
(ii) the name of the applicant;
(iii) a part which appears to be a description; and
(iv) a part which appears to be a claim or claims (Article 11(1) of PCT).

When none of the applicants is a resident or national of Canada, the international application is forwarded to the IB, and the international filing date will be the date the Canadian Receiving Office had received the international application provided that the material originally submitted, according to the IB, satisfies the mandatory requirements to obtain an international filing date,

The filing forms are available from the World Intellectual Property Organization (WIPO) Web site at:

http://www.wipo.int/pct/en/forms/index.htm

A software created to assist the applicant in filing the PCT forms and for filing the application electronically, along with the supporting documentation are available from the World Intellectual Property Organization (WIPO) Web site at:

http://www.wipo.int/pct-safe/en/index.htm

Since January 2nd, 2004, the Patent Office, as a receiving office, will accept Request forms created with the pct-safe software. Applicant should consult periodically CIPO's What's new website at:

http://strategis.gc.ca/sc_mrksv/cipo/new/new-e.html

for further notice regarding international patent application filing.

When an international application does not, at the time of receipt, fulfill the above requirements, the Receiving Office invites the applicant to file the required correction and fixes a reasonable time limit. If the correction is made within the time limit, the date of receipt of the required correction becomes the international filing date.

When an application refers to drawings in the description but the drawings are not

included, the Receiving Office notifies the applicant. In this situation, the international filing date which will be accorded to the application is the date on which the missing drawings are received (Article 14(2) of PCT).

For purposes of the Paris Convention, the filing of an international application has the effect of filing a regular national application in each designated State. Priority rights, for example, may be based on an international application (Article 11(4) of PCT).

22.04.02 Fees associated with filing an international application

Four types of fees are payable to a Receiving Office when an applicant files an international application:

1. Transmittal fee (PCT Rule 14)

The transmittal fee is retained by the Receiving Office for receiving and checking the international application, and for transmitting copies of it to the IB and the ISA.

2. International filing fees (PCT Rule 15)

The international filing fee accrues to the IB for doing the central docketing and for publishing the international application. There is a supplementary charge for each page over 30 pages in the application.

3. Search fee (PCT Rule 16)

The search fee accrues to the ISA for carrying out the search and issuing an International Search Report.

4. Fee for priority document (PCT Rule 17.1 (b))

The fee for priority document accrues to receiving Office for the service of transmitting certified copy of earlier application the priority of which is claimed.

All fees, with the exception of fee for priority document, should be paid when the international application is filed, but are payable within one month after filing in order to maintain the original filing date. Fees for priority document can be paid at the latest before the expiration of 16 months from the priority date, after which the receiving Office may consider the request under PCT Rule 17.1 (b) as not having been made.

The search and international filing fee which accrue to the ISA and IB respectively may change as exchange rates fluctuate. A schedule of fees applicable to the PCT is published as item 13 in the CPOR and is available from the CIPO Web site at:

http://napoleon.ic.gc.ca/cipo/patgazarc.nsf/v_currentedition_e/notice/$File/notice.pdf?OpenElement

22.04.03 Elements of an international application

The structure of an international application is governed by the Treaty and particularly the Treaty Regulations. The Patent Office is bound by the PCT provisions and cannot require the correction of non-compliance to formalities not expressly provided for in the Treaty.

Under Article 3, the Treaty specifies that an international application must be in a prescribed language (PCT Rule 12); therefore, international applications filed in Canada as a Receiving Office must be submitted either in English or in French. The international application must also comply with the prescribed physical requirements (PCT Rule 11) and the unity of invention requirements (PCT Rule 13). It is also subject to prescribed fees.

The international application must contain a

- request (PCT Rule 4)
- a description (PCT Rule 5) with, when required, sequence listing(s) (PCT Rule 5.2)
- claim(s) (PCT Rule 6)
- drawing(s) (PCT Rule 7) (when required), and
- an abstract (PCT Rule 8).

22.04.04 Designation of countries and its effect (PCT Rule 4.9)

The filing of an international application along with the request, constitutes the designation of all Contracting States that are bound by PCT on the international filing date (Rule 4.9(a) of PCT). Furthermore, this full designation is an indication that the international application is, for some designed states (see Article 43 and 44 of the PCT), for the grant of every kind of protection which is available by way of the designation of that state, such as inventor's certificates, utility certificates or models,

patents or certificates of addition, inventor's certificate of addition, or utility certificate of addition.

The designation of some Contracting States (currently, Germany, South Korea and Russia) can be waived in view of some national laws restrictions. The applicant can unselect such state by checking the appropriate box in Box No. V of the PCT Request (Request Form).

This full designation postpones the final decision on which States will be retained for patent protection until the end of the international phase. This procedure gives the applicant more time to consider the various deadlines (formal national phase deadline, translation, power of attorney…) dictating the entry into the national phases. The selection of the Contracting States to be covered is effected by entering in the national phase in the countries or region of interest for the applicant. However, the applicant has to consider to elect the Transitional Reservation Countries (table 22.1) by filing a Chapter II demand, before the expiration of 19 months of the priority date (transitional measure), to enter into National phase in these countries at the end of 30 or 31 months, otherwise the applicant will have to enter into National phase at the end of 20 or 21 months.

22.05 Processing by the International Bureau

The IB administers the Treaty. The main procedural steps that an international application goes through at the IB are the following:

a) the IB monitors and keeps the "record copy" of international applications and all papers filed by applicants;

b) the applicant may amend the claims of the international application under Article 19 by means of communications addressed to the IB;

c) the IB communicates the international application only upon request and at the time specified by the designated and elected Offices (PCT Rule 93*bis*);

d) the IB publishes the international application and International Search Report with a publication number (e.g. WO2004/654321) which shall be different from the

international application number (e.g. PCT/CA2004/123456); and

e) If a demand for international preliminary examination is filed, the IB furnishes the international preliminary report on patentability (IPRP [Chapter II]) upon request to an elected Office (PCT Rule 94). and makes a translation of that report into English when required. The IB also notifies the Transitional Reservation Countries (Table 22.1) of their election.

If no demand for international preliminary examination is filed, the IB issues an International Preliminary Report on Patentability by the ISA (IPRP [Chapter I]), and makes publicly available this report 30 months from the earliest priority date of the international application. An informal procedure is provided for the applicant to submit comments on the ISA written opinion on patentability. These comments are made publicly available along with the IPRP [Chapter I].

22.05.01 Amendment of claims before the International Bureau (Article 19)

After receiving the International Search Report (see MOPOP 22.03.11), the applicant has the right under PCT Chapter I (PCT Article 19 and PCT Rule 46) to amend the claims, and only the claims, once. The time limit for making an amendment is normally 2 months after the search report is transmitted to the applicant, but may be extended to 3 months if the report is transmitted before 14 months from the priority date. Any such amendment must be filed with the IB.

The amendments shall not go beyond the description in the international application as filed i.e., no new matter may be added. Amendments may be made either by cancelling one or more entire claims, by adding one or more new claims and/or by amending the text of one or more of the claims as filed. Where a claim is cancelled, no renumbering of the other claims is required.

If the applicant wishes to amend the claims by changing the existing claims or cancelling entire sheets of claims, he or she must supply replacement sheets and a letter drawing attention to the differences between the replaced sheets and the replacement sheets. The applicant may, at the same time, file a brief statement under Article 19 of the PCT, explaining the amendments and indicating any impact that such amendments might have on the description and the drawings.

22.05.02 International publication

The IB publishes the international application, any amendments, and the International Search Report in the form of a pamphlet (PCT Rule 48.1(a)) as soon as possible after 18 months from the priority date of the application. However, an applicant may ask the IB to publish the international application earlier (PCT Rule 48.4). When the international application is withdrawn by the applicant before the completion of the technical preparations for publication, the international publication can be prevented (PCT Rule 90*bis*(c)).

If the International Search Report and any amendment under Article 19 are not available at the time of publication, they are published separately after they have been received by the IB. The pamphlet is printed in one of the seven following languages: English, French, Chinese, German, Japanese, Russian or Spanish. The abstract, title and search report always appear in English.

22.06 Processing by the International Searching Authority (ISA)

Every international patent application is subjected to an international search by an ISA. The objective of the international search is to discover relevant prior art for the purpose of assessing novelty and inventive step.

The international standards are prescribed in the PCT for the minimum documentation to be consulted.

The ISA carries out the following functions:

a) conducts search of claimed inventions;

b) checks for unity of invention and requests additional fees if unity is lacking;

c) establishes the International Search Report;

d) establishes a first written opinion on patentability;

e) establishes a title and an abstract if either is missing or is inadequate; and

f) transmits copies of the International Search Report to the IB and the applicant.

Presently, the Commissioner of Patents is the ISA for PCT international patent applications filed by Canadian residents or nationals in Canada or with the International Bureau. For international patent applications filed prior to July 26, 2004, the European Patent Office (EPO) was and remains the ISA for the application. Articles 15 to 18 of the PCT and PCT Rules 25 and 33 - 45 concern the competent ISA and its responsibilities.

22.06.01 Excluded subject matter and unity of invention

An ISA is not required to search an international application if the subject matter of the claims constitutes an excluded subject as specified under PCT Rule 39. The excluded subject matter are:

a) scientific and mathematical theories;

b) plant or animal varieties or essential biological processes for the production of plants and animals, other than microbiological processes and the products of such processes;

c) schemes, rules or methods of doing business, performing purely mental acts or playing games;

d) methods for treatment of the human or animal body by surgery or therapy, as well as diagnostic methods;

e) mere presentations of information; and

f) computer programs to the extent that the ISA is not equipped to search prior art concerning such programs.

The international application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept. The ISA is

responsible for reviewing the claims for unity of invention (Article 17(3)(b) and PCT Rules 13 and 40). If the ISA finds unity of invention is lacking, it invites the applicant to pay additional fees. This request for additional fees produces one of the following three results:

a) The applicant willingly pays the additional fees and the ISA establishes a search report for all claims.

b) The applicant pays the additional fees under protest. A special ISA board will review the protest and this review can result in a total or partial reimbursement of the additional fee, or in a rejection of the protest. Depending on the outcome of the review, a search report will be established for the appropriate claims.

c) The applicant does not pay the additional fees. The ISA establishes a search report with respect to the main invention only.

22.06.02 International Search Report (ISR)

The results of the international search are recorded in the International Search Report, which is transmitted to the applicant and to the IB for publication (Article 18 of the PCT). The International Search Report must be established within three months from the receipt of the search copy by the ISA or nine months from the priority date, whichever time limit expires later (Rule 42 of the PCT). Presently, the International Search Report for international applications filed in Canada is established by the EPO in either English or French, depending upon the language used in the application. As of July 26, 2004, the Commissioner of Patents is the ISA for PCT international patent applications filed in Canada or filed in the International Bureau by Canadian nationals or residents on or after that date.

The report identifies the application concerned by its number, the name of the applicant, the international filing date, the priority date (if any), the date of the report, the international patent classification, the fields searched, and the documents constituting the relevant prior art (Rule 43 of the PCT).

The documents are cited against claims to which they are relevant. The report indicates subject matter not searched because of lack of unity of invention, and applicant's failure

to pay additional search fees.

The report also contains a copy of any title or abstract that may have been either revised or established by the ISA.

The International Search Report is always translated into English unless it was originally established in English (Rule 45 of the PCT).

22.07 Processing by the International Preliminary Examining Authority (IPEA)

International preliminary examination of an international application may be requested under Chapter II of the PCT to obtain an international preliminary examination. During this procedure, at least one written opinion is issued by the IPEA. Several written opinions may be issued by the IPEA if sufficient time is available. The applicant will have the opportunity to file amendments to the description, the drawings and the claims and to provide arguments for each of the written opinions.

The international preliminary examination starts according to the schedule provided in PCT Rule 69.1

69.1 Start of International Preliminary Examination

(a) Subject to paragraphs (b) to (e), the International Preliminary Examining Authority shall start the international preliminary examination when it is in possession of all of the following:

(i) the demand;

(ii) the amount due (in full) for the handling fee and the preliminary examination fee, including, where applicable, the late payment fee under Rule 58bis.2; and

(iii) either the international search report and the written opinion established under Rule 43bis.1 or a notice of the declaration by the International Searching Authority under Article 17(2)(a) that no international search report will be established;

provided that the International Preliminary Examining Authority shall not start the

international preliminary examination before the expiration of the applicable time limit under Rule 54bis.1(a) unless the applicant expressly requests an earlier start.

(d) If the national Office or intergovernmental organization that acts as International Searching Authority also acts as International Preliminary Examining Authority, the international preliminary examination may, if that national Office or intergovernmental organization so wishes and subject to paragraphs (d) and (e), start at the same time as the international search.

(b-bis) Where, in accordance with paragraph (b), the national Office or intergovernmental organization that acts as both International Searching Authority and International Preliminary Examining Authority wishes to start the international preliminary examination at the same time as the international search and considers that all of the conditions referred to in Article 34(2)(c)(i) to (iii) are fulfilled, that national Office or intergovernmental organization need not, in its capacity as International Searching Authority, establish a written opinion under Rule 43bis.1.

(e) Where the statement concerning amendments contains an indication that amendments under Article 19 are to be taken into account (Rule 53.9(a)(i)), the International Preliminary Examining Authority shall not start the international preliminary examination before it has received a copy of the amendments concerned.

(f) Where the statement concerning amendments contains an indication that the start of the international preliminary examination is to be postponed (Rule 53.9(b)), the International Preliminary Examining Authority shall not start the international preliminary examination before whichever of the following occurs first:

(i) it has received a copy of any amendments made under Article 19;

(ii) it has received a notice from the applicant that he does not wish to make amendments under Article 19; or

(iii) the expiration of the applicable time limit under Rule 54bis.1(a).

(e) Where the statement concerning amendments contains an indication that amendments under Article 34 are submitted with the demand (Rule 53.9(c)) but no such amendments are, in fact, submitted, the International Preliminary Examining Authority shall not start the international preliminary examination before it has received the amendments or before the time limit fixed in the invitation referred to in Rule 60.1(g) has expired, whichever occurs first.

An applicant who is a resident or national of a Contracting State bound by Chapter II of the Treaty may make a demand (Demand Form) for international preliminary examination (Rule 53 of the PCT). The demand must be submitted directly with the International Preliminary Examining Authority (IPEA) (IB or Receiving Office). The demand comprises the election of all Contracting States which are designated and bound by Chapter II of the Treaty (Rule 53.7 of the PCT).

The IPEA carries out the following functions:

a) receives the demand for international preliminary examination;

b) receives both handling and preliminary examination fees;

c) checks the demand for non-compliance to formalities (conformance with Rules 53, 54 and 55 of the PCT on format of the demand, applicant entitlement and language requirement) and verifies the payment of fees;

d) sends the original copy of the demand, and handling fees to the IB.

e) examines the international application for sufficiency of description, unity of invention, support of claims by the original description, and for patentability of claims in accordance with PCT criteria;

f) issues written opinions to which the applicant may respond with amendments or arguments. Unless advised otherwise by the IPEA (PCT Rules 66.1*bis*) the first written opinion by the ISA is to be considered as a written opinion of the IPEA for the purposes of PCT Rule 66.2(a):

g) prepares the International Preliminary Report on Patentability [Chapter II]; and

h) transmits the report to the IB and the applicant.

Presently, the Commissioner of Patents is the IPEA for PCT international patent applications filed in Canadian residents or nationals in Canada or with the International Bureau. For international patent applications filed prior to July 26, 2004, the European Patent Office (EPO) was and remains the IPEA for the application. Articles 31 - 42 and

Rules 53 - 78 of the PCT concern the IPEA and its responsibilities.

22.07.01 Fees associated with international examination

There are two kinds of fees which have to be paid in connection with a demand for an international preliminary examination:

1. The preliminary examination fee
   This fee accrues to the IPEA, mainly for carrying out the international preliminary examination and for establishing the report.

2. The handling fee
   This fee accrues to the IB for carrying out various tasks.

Where the IPEA finds that insufficient handling or preliminary examination fee have been paid, the IPEA invites the applicant to pay the amount required to cover the insufficient fee, together with, where applicable, a late payment fee under Rule 58*bis*.2 of the PCT, within a time limit of one month from the date of the invitation.

22.07.02 Amendments before the IPEA (Article 34)

Any applicant contemplating making a demand for preliminary examination may choose not to amend the claims after receiving the International Search Report under the provisions of Article 19 of the PCT. The applicant may rather choose to wait and submit amendments to the IPEA together with the demand, and/or amend the application after receiving a written opinion from the IPEA. At this stage, the applicant may amend not only the claims, but other parts of the application as well (Article 34 and Rule 66 of the PCT). The amendments may not go beyond the description of the international application as filed i.e., no new matter may be added.

The applicant may have several opportunities to amend the international application during the preliminary examination process, depending on the time available. The limiting factor is the PCT requirement that the IPEA complete the international preliminary examination report before the expiry of 28 months from the priority date, or 28 months from the international filing date, if there is no priority date.

Amendments are made by providing replacement sheets, accompanied by a letter of explanation. The amendment(s) and letter(s) must be in the language in which the international application was filed (Rule 66 of the PCT).

22.07.03 Excluded subject matter and unity of invention

Claims relating to inventions in respect of which no International Search Report has been established, because the claims relate to excluded subject matter or do not meet the requirements for unity of invention, will not be the subject of international preliminary examination. This will be indicated in any written opinion as well as in the international preliminary examination report.

When the IPEA considers that the international application does not comply with the requirements of unity of invention (Article 34(3) and Rule 68 of the PCT), it may choose between two courses of action:

1) it may carry out the international preliminary examination on the entire international application and express its views on the lack of unity of invention in the report; or

2) it may invite the applicant to restrict the claims so as to comply with the requirement or pay additional fees. The request for additional fees produces one of the following four results:

a) The applicant restricts the claims as required, in which case the examination is carried out on the claims as restricted;

b) The applicant willingly pays the additional fees and the international examination is carried out on the claims for the main invention and on the claims in respect of which additional fees have been paid (Rule 68.2 of the PCT);

c) The applicant pays the additional fees under protest; in this case, a special IPEA Board will review the protest. This review can result in a total or partial reimbursement of the additional fees, or in a rejection of the protest. Depending on the outcome of the review, an examination report

will be established for the appropriate claims (Rule 68.3 of the PCT);

d) The applicant neither restricts the claims nor pays additional fees, in which case, the examination is carried out on the main invention as identified by the IPEA or the applicant (Article 34(C) of the PCT).

22.07.04 International Preliminary Report on Patentability [Chapter II]

Following the international preliminary examination procedure, an International Preliminary Report on Patentability (IPRP [Chapter II]) is issued at whichever of the following periods expires last (Rule 69.2 of the PCT):

(i) 28 months from the priority date;
(ii) six months from the time provided under Rule 69.1 (see MOPOP 22.07) for the start of the international preliminary examination; or
(iii) six months from the date of receipt by the International Preliminary Examining Authority of the translation furnished under Rule 55.2.

The international preliminary examination report is a *non-binding opinion* on the patentability of the claims. Under PCT Rule 70, the international preliminary examination report includes:

a) identification of the IPEA and the applicant;

b) the applicable dates;

c) the basis of the report;

d) a simple yes or no statement with respect to each claim indicating whether the claims are thought to satisfy the criteria of patentability (novelty, inventive step and industrial applicability) and including an explanation and citation of references to support the conclusion contained in the statement;

e) the citation of certain published documents comprising applications or patents published after the international filing date but filed prior to the international filing date (prior art effect);

f) mention of certain defects under Article 34(4) and Rule 66.2 of the PCT;

g) remarks concerning unity of invention; and

h) an annex of any amendments filed during the examination process.

The report will express no opinion as to whether the claims are patentable under the national law of any elected country.

22.08 The national phase for processing an international application

On completion of the international phase, further action is required in order to obtain patent protection in the various countries designated in the international application at the time of filing. The applicant has to enter the **"national phase"**, that is, initiate patent granting procedures in each designated or elected country according to the laws, rules and jurisprudence thereof.

22.08.01 Entry into the national phase in Canada

In order to obtain patent protection in the various countries designated in the international application at the time of filing, the applicant has to enter the national phase, that is, initiate patent granting procedures in each designated country and pay the prescribed national fees.

Applicants must comply with the terms of the PCT and the regulations under the PCT as well as Part II of the Canadian Rules respecting the Patent Act. The national phase starts only if the applicant fulfills certain requirements, either before the expiration of a certain time limit or together with an expressed request that it starts earlier. The applicant should not expect any notification inviting him to fulfill those requirements. He has the sole responsibility for fulfilling them in due time [1].

Part II of the Canadian Rules respecting the *Patent Act* provides a connection between the Patent Cooperation Treaty and the Canadian *Patent Act*. It covers such items as time limits, language of applications, fees and terms and conditions relating to the national phase.

The effective filing date of a PCT national phase application is the international filing date, and not the date on which the PCT application enters the national phase in Canada.

To enter the national phase in Canada, an applicant must take steps to do so within 30 months from the priority date of the international application, or 30 months from the international filing date if no priority is claimed (paragraph 58(3)(*a*) of the *Patent Rules*).

When an international application becomes a PCT national application, the application shall thereafter be deemed to be an application filed in Canada [2] and the *Patent Act* and the *Patent Rules* shall thereafter apply in respect of that application (section 59 of the *Patent Rules*).

For the purposes of a citation under section 28.2(1)(*c*) and (*d*) of the *Patent Act* in the prosecution of another application, a PCT application will benefit from its filing date or priority date only after it has entered the national phase.

Under section 61 of the *Patent Rules*, the requirement that an application contain a petition does not apply to PCT national phase applications. The first page of the pamphlet published by the IB includes all the required information to enter the national phase.

22.08.02 Late entry into the national phase in Canada

Under subsection 58(3)(*b*) of the *Patent Rules*, where an applicant fails to enter the national phase within 30 months after the priority date, but pays the additional fee for late payment and the required maintenance fees (set out in Schedule II, item 11 of the *Patent Rules*), he/she may enter the national phase up to 42 months after the priority date.

22.08.03 Content of PCT national phase application entering under Chapter I in Canada

When an international application becomes a PCT national phase application by entering the national phase in Canada under Chapter I of PCT, i.e., when no demand under Chapter II has been filed (IPRP [Chapter II]), the Patent Office creates an

examiner's file comprising:

a) a copy of the applicant's international application as communicated to the Patent Office by the IB;

b) a copy of the International Search Report or, alternatively, a statement by the ISA that no search report will be established (Article 17(2)(a) of the PCT);

c) a copy of any amendment to the claims, and any statement made by the applicant under PCT Article 19 in light of the international search; and

d) a copy of the IPRP [Chapter I]

If the international application was published by the IB in a language other than English or French, the examiner's file must include the translation into either French or English which should have been provided by the applicant upon entering the national phase in Canada. The translation must correspond to the international application as filed or as amended during the international phase. If the translation corresponds to the application as filed, a translation of any amendments submitted during the international phase can be filed separately or incorporated in the translation of the Canadian application.

If the Commissioner has reasonable grounds to believe that the translation is not accurate, the Commissioner shall requisition the applicant to provide a statement by the translator to the effect that, to the best of the translator's knowledge, the translation is complete and faithful (subsection 58(4) of the *Patent Rules*).

22.08.04 Content of PCT national phase application entering under Chapter II in Canada

When an international application becomes a PCT national phase application by entering the national phase in Canada under Chapter II of the PCT, the examiner's file should include the following:

a) a copy of the applicant's international application as communicated to the Patent Office by the IB;

b) a copy of the International Search Report or, alternatively, a statement by the ISA that no search report will be established (Article 17(2)(a) of the PCT);

c) a copy of any amendment to the claims, and any statement made by the applicant under PCT Article 19 in light of the international search;

d) a copy of the IPRP [Chapter II]; and

e) a copy of replacement sheets containing amendments, if any.

All of the above items must be presented in either French or English.

If an applicant believes that he/she is entitled to claim status as a "small entity" as defined under section 2 of the *Patent Rules*, a formal declaration of the status as small entity at the international filing date, has to be provided at the National Entry.

Furthermore, if the applicant enters the national phase in Canada more than two years after the international filing date, the applicant must also pay the first maintenance fee at the time of entry (subsection 58(2) of the *Patent Rules*).

22.08.05 Other amendments provided on or after national entry in Canada

Under the terms of PCT, the applicant may amend the description, the claims and the drawings before national entry into any designated or elected Office (Articles 19 and 41 of the PCT).
However, once a PCT application enters the national phase in Canada, it is treated in exactly the same manner as any other application filed in Canada. Therefore, when a PCT national phase application includes voluntary amendments on entering the national phase which were not considered during the international phase, it must be accompanied by a written statement under section 34 of the *Patent Rules*. Moreover, voluntary amendments that are filed after the national entry on a PCT national phase application, must be accompanied by a written statement explaining the nature of the amendment and its purpose.

It is strongly suggested to use a heading such as, VOLUNTARY AMENDMENT FOLLOWING PCT NATIONAL ENTRY, on the written statement.

22.08.06 Completion requirements in the national phase in Canada

An application which has entered the national phase in Canada according to the provisions of subsection 58(1) or (2) of the *Patent Rules* may still be incomplete. To provide a complete application, subsection 62(1) of the Patent Rules specifies the following documents and information that must be provided to avoid abandonment under subsection 73(2) of the *Patent Act*:

a) the name and address of the inventor where that information has not already been provided;

b) c) Paragraphs 62(1)(*b*) and 62(1)(*c*) of the *Patent Rules* are repealed as of 30 March, 2004 (SOR/2004-67). Where a sequence listing is required by paragraph 111(a) of the *Patent Rules*, a copy of sequence listing in computer readable form complying with section 131 of the *Patent Rules* is mandatory unless the description contains a sequence listing complying with the standard provided for in the PCT Administrative Instructions (PCT Rule 13*ter*.2 of the Regulations under the PCT). However, the sequence listing portion filed electronically may not appear with the rest of the description. At laid open, a note on the cover page of the PCT publication would indicate that the sequence listing is available separately in electronic form. Applicant can provide the copy of sequence listing complying with section 131 of the *Patent Rules* at national entry, as a voluntary submission or following a notification, with the opportunity to comply within a prescribed period of time, by the Patent Office. Abandonment of the application by not complying to section 131 of the *Patent Rules* will occur only following the requisition under subsection 30(2) of the *Patent Rules* by the Patent Office, provided that the prescribed fee for the Request for examination under subsection 35(1) of the *Patent Act* has been paid. When prescribed fee for the Request for examination is not paid and the application does not comply to section 131 of the *Patent Rules*, a courtesy letter with a three (3) months delay will be sent. Failure to respond to the courtesy letter may result in a formal request, under subsection 35(2) of the *Patent Act*, by the Commissioner to the applicant to make a request for examination pursuant to subsection 35(1) of the *Patent Act.*

More information about sequence listings is available from the World Intellectual

Property Organization (WIPO) Web site at:

http://www.wipo.int/pct/en/sequences/index.htm

d) an appointment of a patent agent, where required by section 20 of the *Patent Rules*;

e) an appointment of an associate patent agent, where required by section 21 of the *Patent Rules*; and

f) an appointment of a representative, where required by section 29 of the *Patent Act*.

The date by which the information and documents referred to in subsection 62(1) of the *Patent Rules* must be submitted is the expiry of the latest of:

a) the 36-month period after the priority date; and

b) the six-month period after the applicant complies with the requirements of subsection 58(1) and, where applicable, subsection 58(2) of the Patent Rules.

No extension of the time limits given in paragraphs a), b) and c) above is permitted (subsection 62(3) of the *Patent Rules*).

The Commissioner may, at the request of the applicant, reinstate the international application which is deemed to have been abandoned if, within 12 months after the date on which it was deemed to have been abandoned, the applicant complies with the above requirements and pays the reinstatement fee (section 98(1) of the *Patent Rules*) [3].

22.08.07 Application of Canadian Legislation

Section 59 of the Patent Rules provides that when an international application becomes a PCT national phase application, the application is considered from that moment on as an application filed in Canada. The PCT national phase application is examined for its conformity to the *Patent Act* and *Rules*, which includes any substantive conditions of

patentability, such as any question in respect of prior art, new matter, clarity and/or ambiguity (Article 27(5) of the PCT). The *Patent Act* and *Rules* cannot require compliance with requirements relating to the form or contents of the international application different from or additional to those which are provided for in the PCT Treaty and Regulations (Article 27(1) of the PCT).

The authority regarding unity of invention for all patent applications filed in Canada, including PCT application in national phase is found in section 36 of the *Patent Act*. Since the requirements under section 36 of the *Patent Act* have the same scope as those prescribed under PCT Rule 13, these requirements are not different from or additional to PCT Rule 13.1, and therefore compliant with Article 27(1) of the PCT.

Under section 38.2 of the *Patent Act*, any new matter added in a PCT national phase application after the international filing date which is not reasonably to be inferred from the originally-filed specification and drawings must be removed. Since several amendments may have been made to a PCT national phase application prior to the examiner's consideration, the examiner's report will refer to the specific matter considered as new matter and the date of introduction of this matter.

22.09 Access to the file of an international application

In addition to the international publication, which includes the international application and the International Search Report (sometimes published at a later date), third parties can access the first written opinion by the ISA, the IPRP [Chapter I] (and/or any translation thereof), or the IPRP [Chapter II] to the Canadian national phase application originating from the international application under the provision of section 10 of the *Patent Act*, but after the expiration of 30 months from the priority date (PCT Rules 44*ter* and 94).

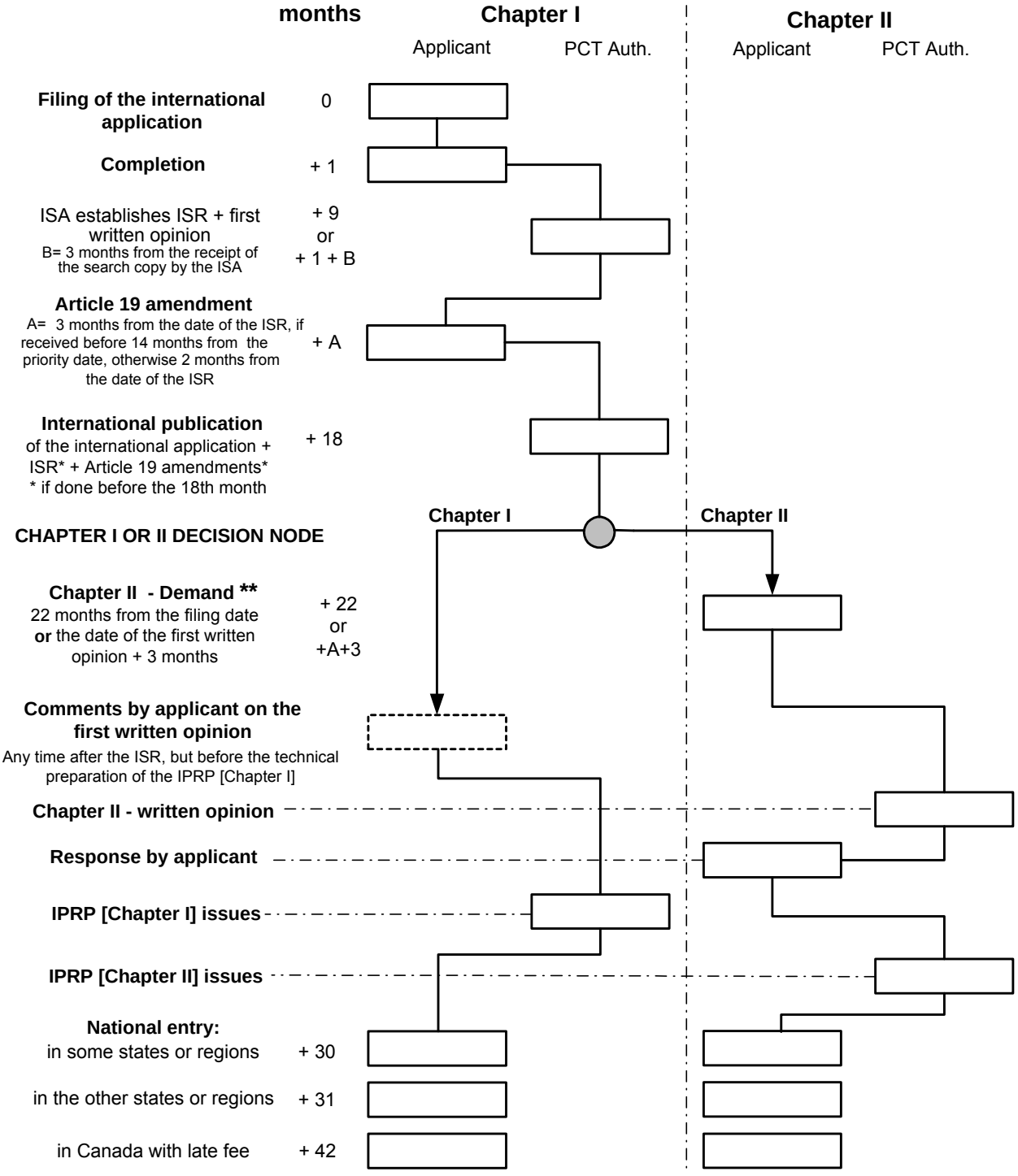
Endnotes for Chapter 22

1 PCT Applicant's Guide Volume II, Chapter 2, Paragraph 12
First Green Park Pty. v. Canada (Attorney General) (1997) 72 C.P.R. (3d) 327 at 332-333

2 Celltech Ltd. v. Canada (Commissioner of Patents) (1993) 46 C.P.R. (3d) 424 at 437, affirmed 55 C.P.R. (3d) 59. *"Since this was not done [designation of Canada], the Application was not to be dealt with under the law applicable to international applications in Canada"*

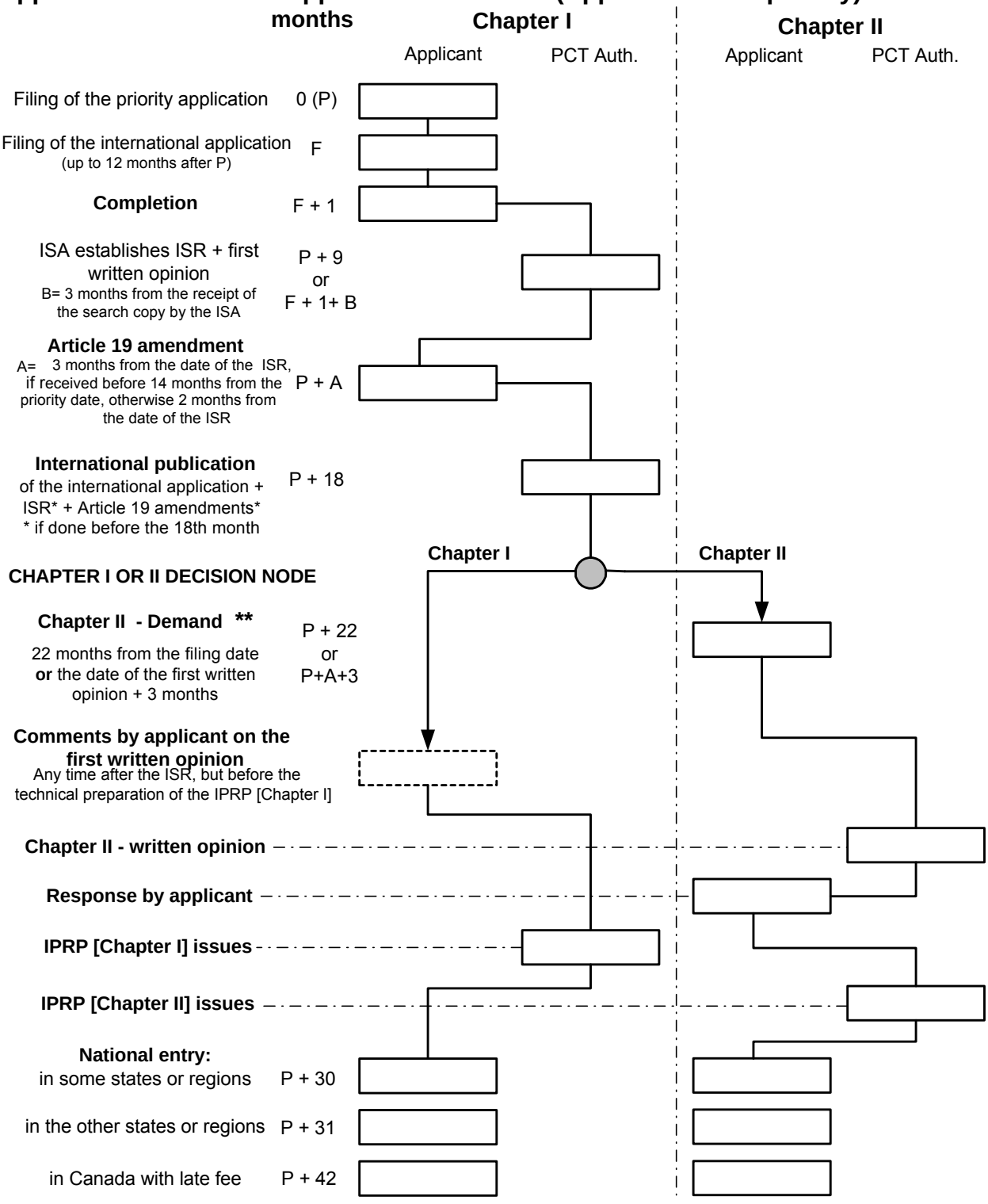
3 First Green Park Pty. Ltd v. Canada (Attorney General) (1998) 84 C.P.R. (3d) 46 at 51, affirmed (2000) 6 C.P.R. (4th) 234

Appendix 22.1: PCT Application Deadlines (Application without priority)



** + 19 for international examination and transitional reservation countries, 10-month extension (Table 22.1 of MOPOP)

Appendix 22.2: PCT Application Deadlines (Application with priority)



** P + 19 for international examination and transitional reservation countries, 10-month extension (Table 22.1 of MOPOP)

Chapter 23
Amendments to patents

23.00 Contents of chapter

This chapter deals with the various statutory methods whereby an issued patent may be amended. The topics covered include disclaimer (23.01 to 23.01.02), re-examination (23.02 to 23.02.10), reissue (23.03 to 23.03.11) and section 8 corrections (23.04 to 23.04.03).

23.01 Disclaimer

Disclaimer is a mechanism whereby a patentee may amend a patent to claim less than that which was claimed in the original patent. A disclaimer is not limited to a whole claim or claims. A part of a claim may be disclaimed, provided that the disclaimer does not extend the scope of this claim or any claims depending on this claim [1].

Subsection 48(1) of the *Patent Act* entitles a patentee to disclaim anything included in the patent by mistake, accident or inadvertence [2] at any time during the term of the patent. Whenever a specification is too broad, claiming more than the inventor invented or subject matter to which the patentee had no lawful right [3], the patentee may, on payment of a prescribed fee, disclaim such parts as the patentee does not claim to own by virtue of the patent (paragraph 48(1)(*b*) of the *Patent Act* and Schedule 2, Part 3, Item 13 of the *Patent Rules*). A disclaimer cannot be used to broaden the claims of a patent.

23.01.01 Disclaimer form

A disclaimer must follow the form and instructions for its completion as set out in Form 2 of Schedule I of the *Patent Rules* to the extent applicable (section 44 of the *Patent Rules*). In completing Form 2, the patentee must follow the precise form of items 3(1) and 3(2), which specify the subject matter disclaimed. The expression "...with the exception of the following:" in Form 2 indicates elements of the claim(s) remaining after the disclaimer, and is not to be used as a device for reformulating or redefining the

invention disclosed and claimed [4].

23.01.02 Effect of a disclaimer

Disclaimers do not normally affect any court action pending at the time they are made (subsection 48(4) of the *Patent Act*). In a court action, the plaintiff has to be a party to the disclaimer to be bound by it [5]. In a comparable manner, a disclaimer filed after the notice of hearing of the Patented Medicine Prices Review Board does not affect the authority of the Board [6].

Following a disclaimer, the remaining claims are deemed to be valid for the matter not disclaimed, i.e. in their disclaimed form [7] (subsection 48(6) of the *Patent Act*). The disclaimer is unconditional. The existing claims of the patent are the claims as amended by virtue of the disclaimer, and the only invention protected by the letters patent is that defined by such existing claims [8].

23.02 Re-examination

This section describes the practice that is followed when a request for re-examination of a patent is submitted.

23.02.01 Request

Any person, including the patentee, may request re-examination of any claim or claims of a patent issued after October 1, 1989, at any time during the life of the patent on the basis of prior art only. The prior art shall consist of patents, applications for patents open to pubic inspection and printed publications only (subsection 48.1(1) of the *Patent Act*). The request, including copies of the prior art, must be provided in duplicate if the requester is not the patentee (section 45 of the *Patent Rules*). One copy is for a re-examination board and the other copy is for the patentee. The requester must set forth the pertinency of the prior art and the manner of applying it to the claim(s) for which re-examination is requested. The request must be in writing and be accompanied by the prescribed fee.

23.02.02 Notification procedure

Upon receipt of a request satisfactorily identifying the prior art and the manner of applying it, along with the fee, the Commissioner will appoint a re-examination board (RXB). The patentee will be sent a package that contains a copy of the request including the prior art and a notification identifying the composition of the re-examination board. In the event that the requester is the patentee, only a notification identifying the composition of the RXB will be sent (subsections 48.1(3) and 48.2(1) of the *Patent Act*).

23.02.03 Unacceptable request

If the request does not fulfil all of the requirements of subsections 48.1(1) and (2) of the *Patent Act* and section 45 of the *Patent Rules*, the requester will be so notified. The notification letter will detail the reasons why the request is not acceptable. An example of an unacceptable request is one that does not detail the pertinency of the prior art against the claim or claims to be re-examined. The requester will be informed by the Commissioner that no further steps will be undertaken until the above requirements have been fulfilled.

Any unacceptable requests may be resubmitted in acceptable form without the payment of a further fee.

23.02.04 Completed request

The completed request will become part of a Patent Office initial re-examination file, which will consist of the following:

a) the Patent Office file copy of the patent, including the description, claim(s), drawings as issued and all prosecution correspondence
b) a copy of the request
c) copies of the prior art being relied on
d) reasons supporting the request for re-examination

This file is open to public inspection.

23.02.05 Re-examination board

The Commissioner will establish a re-examination board consisting of not fewer than three persons, at least two of whom shall be employees of the Patent Office, to which the request shall be referred for determination (subsection 48.2(1) of the *Patent Act*). Within three months following its establishment, the re-examination board shall determine whether a substantial new question of patentability affecting any claim of the patent concerned is raised by the request for re-examination (subsection 48.2(2) of the *Patent Act*).

23.02.06 Refusal of re-examination

If the board determines that re-examination should not proceed because a substantial new question affecting the patentability of a claim of the patent concerned is not raised, the requester shall be so informed. The determination not to proceed is final and is not subject to appeal, either to the Commissioner or to the courts (subsection 48.2(3) of the *Patent Act*).

23.02.07 Re-examination

The re-examination board, having decided to proceed with re-examination, shall notify the patentee and give the reasons for the decision (subsection 48.2(4) of the *Patent Act*). Within three months of the date of the notice, the patentee may make submissions on the question of the patentability of the claim(s) (subsection 48.2(5) of the *Patent Act*). Re-examination will commence upon receipt of the reply or, in the absence of a reply, within three months of the date of the notice (subsection 48.3(1) of the *Patent Act*). In either case, re-examination shall be completed within 12 months of the commencement of re-examination (subsection 48.3(3) of the *Patent Act*).

The re-examination board will not consider any matter except the claims in question in view of the supplied prior art. Further, the re-examination board will not make any changes to the description part of a patent, in that there is no statuary authority for such changes. During the re-examination period, the patentee may propose amendments to the patent claims (including submission of new claims), but the scope of the claim(s) may not be broadened. Any number of separate proposals from the patentee during this period is permissible (subsection 48.3(2) of the *Patent Act*). The Commissioner will

acknowledge the correspondence from the patentee but will not reply to the proposals.

23.02.08 Certificate of re-examination

Upon conclusion of re-examination, a certificate will be issued in accordance with paragraph 48.4(1)(*a*), (*b*) or (*c*) of the *Patent Act* and attached to the patent. This certificate will affect the original patent by

a) cancelling any claim of the patent determined to be unpatentable during the re-examination;

b) confirming any claim of the patent determined to be patentable; or

c) incorporating in the patent any proposed amended claim determined to be patentable.

The effect of a certificate issued in respect of a patent under subsection 48.4(3) of the *Patent Act* is as follows:

a) If the conclusion is to cancel any claim but not all claims of the patent, the patent shall be deemed to have been issued, from the date of grant, in the corrected form.

b) If the conclusion is to cancel all claims of the patent, the patent shall be deemed never to have been issued.

c) If the conclusion is to amend any claim of the patent or incorporate a new claim or new claims in the patent, the amended claim(s) or new claim(s) shall have effect, from the date of the certificate of re-examination, for the unexpired term of the patent.

The deemed results of paragraphs (a), (b) and (c) above do not take effect until the time for taking an appeal has expired under subsection 48.5(2) of the *Patent Act* and, if an appeal is taken, the above-mentioned deemed results apply only to the extent provided in the final judgment of any appeal (subsection 48.4(4) of the *Patent Act*).

The re-examination board will send a copy of the certificate to the patentee (subsection 48.4(2) of the *Patent Act*). If the requester is not the patentee, the board may also send him or her copies of the correspondence to the patentee generated during the re-examination procedure. A summary of the certificate will appear in the Canadian Patent Office Record.

23.02.09 Termination of re-examination

Upon completion of re-examination, the contents of the re-examination file created under 23.02.04 will be sent to the Patent Office storage files. The Patent Office search file will include a copy of the patent as re-examined.

23.02.10 Appeal period

The patentee receives a copy of the certificate by registered mail and may appeal the decision of the re-examination board to the Federal Court within three months of the date of mailing of the certificate (subsections 48.5(1) and (2) of the *Patent Act*).

23.03 Reissue

Reissue is a mechanism whereby a defective patent can be corrected. It may result in broader or more restricted protection, depending on the nature of the correction.

Section 47(1) of the Patent Act enables the Commissioner to replace a defective or inoperative patent (as defined by section 47(1) of the *Patent Act*) with a new patent. In order to have a patent reissued, the patentee, or "the person for the time being entitled to the benefit of a patent for an invention [9]" must make a request for reissue (Form 1) in accordance with section 43 of the *Patent Rules*, pay a prescribed fee, and surrender the defective patent on the issue of the new patent. One of the effects of the surrender is the return by the patentee of the official copy bearing the Patent Office seal (also know as the "grant copy") to the Patent Office.

In accordance with subsection 47(1) of the *Patent Act*, a patentee may apply within four years from the date of issue of a patent for the reissue of a patent that "is deemed defective or inoperative by reason of insufficient description and specification, or by

reason of the patentee's claiming more or less than he had a right to claim as new, but at the same time it appears that the error arose from inadvertence, accident or mistake without any fraudulent or deceptive intention [10]". The four-year period applies to the date of the application for reissue and not to the grant of the reissued patent [11]. The reissued patent must be for the same invention as the original.

A reissue must be confined to the invention that was completely conceived and formulated by the inventor before the application for the original patent was filed, and to the invention that the patentee attempted to describe and claim in the original application but, owing to error arising from inadvertence, accident or mistake, failed to do perfectly [12]. Further, whenever a reissue contains claims that are broader than the claims in the original patent, they must be directed to what the patentee was attempting to protect in the original patent. The scope of the reissue must not go beyond the invention as disclosed in the original patent [13].

23.03.01 Division of a reissue application

Under subsection 47(3) of the *Patent Act*, a patentee may file separate applications for reissue in respect of distinct parts of the invention covered by the original patent being reissued. Reissue applications must be filed in the Patent Office within four years from the date of issue of the original patent. The separate reissue applications must all have been filed before the effective date of surrender of the original patent grant, i.e. before the grant of a reissued patent based on any one of them.

The Commissioner will not call for division of a reissue application under subsection 36(2.1) of the *Patent Act* nor will a patentee be permitted to use the provisions of subsection 36(2) of the *Patent Act* during the reissue process under section 47 of the *Patent Act*.

23.03.02 Reissue of a reissued patent

A reissued patent may itself be reissued provided that the application to reissue is filed within four years of the date of the original patent (not of the reissued patent), and provided that the invention is that for which patent protection was sought in the original patent. A reissued patent may not be withdrawn after it has been issued in favour of the original patent.

23.03.03 Reissue and new matter

The patentee must not add new subject matter that was not part of the original invention to the description [14]. Subject matter that is properly inferable from the original specification or drawings and could have been entered under subsection 38.2(2) of the *Patent Act* may be accepted. Under subsection 38.2(3) of the *Patent Act*, drawings may be amended to add matter reasonably inferable from the original specification or drawings [15] or from matter that is admitted to be prior art or common knowledge [16]. New matter discovered after the date of the filing of the original application may not be added by reissue, as there was no attempt to protect such subject matter in the original patent.

23.03.04 Claims in reissued patent

Not only may a patentee claim less than what was claimed in the original patent, but the patentee may also claim more. In both instances the following conditions must be complied with:

a) The new claims must be directed to the same invention that the patentee attempted to protect in the original patent [17].

b) There must not have been a complete failure to describe in the original patent the invention that is the subject matter of the new claims. The claims presented in the reissue must have support in the specification of the patent [18].

23.03.05 The petition for reissue

The petition must set out fully the respects in which the patent is defective or inoperative and how the errors arose (see section 43 and Schedule I, Form 1 of the *Patent Rules*).

Reissue applications are subject to examination and are given priority of examination. Examination takes place without a request for examination or the payment of an examination fee; these are included in the reissue fee. The first step, before any other consideration, is to examine the petition for its compliance with section 47 of the *Patent Act*.

a) If the petition for reissue is acceptable, the reissue specification is subject to examination (see section 23.03.10).

b) If the petition for reissue is not acceptable, the patentee will be informed by a Commissioner's letter, which will set out the reasons for non-compliance with the *Patent Act*. The Commissioner's letter is written under subsection 47(1) of the *Patent Act* and will specify a three-month time limit for response, after which the Commissioner may refuse the reissue application.

Parts 3, 4 and 5 of Schedule I, Form 1 may not be amended after the petition for reissue is filed, other than to correct simple typographical errors obvious from the document itself. If additional evidence supporting the facts presented in the petition is submitted, it may be put on file but not added to the petition itself. If the facts presented in parts 3, 4 and 5 of the petition subsequently prove to be incorrect, the only way to make corrections is to file a completely new application for reissue (if time still permits) and to pay the reissue fee. Section 47 of the *Patent Act* does not provide for amendments of the petition and submission of additional evidence.

When items 3, 4 and 5 of the petition for reissue are not in accordance with subsection 47(1) of the *Patent Act*, no amendment may be made thereto. However, the patentee may submit a reasoned statement showing how the petition for reissue is in compliance with the *Patent Act* and/or file a new petition along with a further reissue fee provided that the four-year time period has not passed. On receipt of a Commissioner's letter indicating that the petition for reissue is not acceptable and setting a three-month period for reply, any of the following may occur:

a) If the patentee replies within the time provided, but the Commissioner, after consultation with the Patent Appeal Board (PAB), has reasonable grounds to believe that the petition for reissue still does not comply with the *Patent Act*, the Commissioner will refuse to issue a new patent and the original patent will be returned to the petitioner.

b) If the patentee replies within the time provided, and the submitted reasoned statement is found persuasive, the reissue specification is examined (see section 23.05.10).

c) If the patentee files a new petition along with a further reissue fee and submits a

reasoned statement regarding the original reissue application, paragraphs (a) and (b) apply to the original reissue application. Considerations regarding the new reissue application will be addressed on their own merits.

d) If the patentee does not reply within the time provided, the Commissioner will refuse to issue a new patent and the original patent will be returned to the petitioner.

e) If the patentee files a new petition along with a further reissue fee and does not reply within the time provided for the original reissue application, the Commissioner will refuse to issue a new patent based on the original reissue application and the original patent will be transferred to the new reissue application for consideration. Considerations regarding the new reissue application will be addressed on their own merits.

23.03.06 Acceptable reasons warranting reissue (Item 3, Form 1)

The fundamental questions to be considered in deciding whether a reissue is warranted are as follows:

a) whether or not a bona fide mistake was made, resulting in a failure to obtain protection for the invention actually made by the inventor

b) whether or not there was a complete failure to describe that invention in the original specification, including description and drawings

The answer to the first must be “yes,” and to the second, “no.” It must be apparent from the petition or supporting documents that the inventor intended to protect the invention that he or she seeks to protect by reissue. It must not be apparent that the inventor did not intend to protect that invention.

The following are some examples of situations where a reissue would be in order, assuming that the other requirements for reissue were satisfied.

a) Failure to claim the invention. The original patent did not accurately put into words what the patentee had intended to protect at the time of issue, because

the patent agent failed to comprehend and claim the invention properly [19]. The fact that the original patent disclosed but did not claim the matter covered in the reissue may be a ground to reissue if it can be shown that there was intent to claim the subject matter [20].

b) Failure to claim broadly. The patentee wishes to claim a subcombination that was claimed only as part of a combination. A reissue may be permitted if the subcombination cannot perform in an environment different from that of the combination claimed. The patentee wishes to add claims supported by the original description that are intermediate in scope between the broadest claims cancelled during the prosecution of the original patent, in view of prior art cited by the examiner, and the broadest claim granted on the original patent. Extension of a range may be possible if the extension is fully supported by the specification of the original patent and if the claims of the original patent are unrealistically too limited. Extension must be justifiable, fully supported by the specification of the original patent and based on claims clearly unrealistically too limited [21].

c) Claiming too broadly. The patentee wishes to narrow the scope of the invention protected by amending the specification to delete matter the patentee had no right to claim. For instance, he or she may wish to narrow the scope of the claims because of the discovery of prior art after the patent was issued [22].

d) Adding narrower claims. The patentee wishes to add claims that are narrower in scope to those in the original patent while still retaining the broad claims of the original patent. This is permitted provided that the intent to protect the invention defined by the narrower claims in the original patent can be shown. This is treated as a case of “insufficient specification,” since “specification” includes both description and claims.

e) Insufficient description. The patentee wishes to amend the description of an original patent in which the invention had been claimed but not adequately shown or described. New matter that is common knowledge may be added [23].

f) Claims of a different category. A reissue of the patent may be allowed in order to permit claims of different categories (such as product, process, apparatus and

use of product) to be added, provided that the new claims are for the same invention claimed in the original patent and the subject matters defined by all the claims are so linked as to form a single general inventive concept in accordance with section 36 of the *Patent Rules*. A patent cannot be reissued with claims directed to different categories if the claims define an invention that differs from that disclosed in the original patent [24].

23.03.07 Unacceptable reasons for reissue (Item 3, Form 1)

Reissue is not permitted for the following purposes:

a) to add newly discovered matter, such as subject matter developed after issuance of the original patent [25] or subject matter which was unknown to the inventor and which he or she had no intention of describing or specifying or claiming in the original patent [26]

b) to reassert claims deliberately cancelled during the prosecution of the original patent in the face of an objection from the examiner, and with full knowledge of the relevant facts [27]

c) to insert claims broader in scope than claims deliberately cancelled during the prosecution of the original patent because of an objection made by the examiner, and with full knowledge of the relevant facts [28]

d) to reassert claims limited during the prosecution of the original patent to clear prior art, [29] to avoid a conflict [30] or to avoid claims broader than these

e) to insert claims which are of the same scope as the original claims and which provide the same protection as was provided by the original claims

f) to reassert subject matter that was withdrawn to avoid final action issued by an examiner; in having made the amendment, the application was deemed to have been carefully considered by the patentee [31]

g) to reassert claims that were cancelled because of a requirement for division made during the prosecution of the original patent, where the patentee had full knowledge of the relevant facts

h) to correct matter included in the petition, unless the reissue is made on other acceptable grounds irrespective of when the mistake in the petition was discovered, for example, to correct misjoinder of inventors [32] or previously regularly filed application(s) on which priority is requested

i) to take advantage of intervening legislation (such as amendments to the *Patent Act*) or court judgments

j) to change the claims because the patent is being circumvented by others (e.g. corrections based on the analysis of a competitor's product[33]), unless the patentee can show intent to protect in the original patent what is claimed in the reissue and a failure to do so by reason of error arising from inadvertence, accident or mistake

k) to combine the subject matters of two existing patents by surrendering each into a single reissue patent, thereby extending the prescribed period of protection for some of the matter [34]

l) to correct a patent that was judicially declared fundamentally invalid [35]

There may well be other reasons advanced for reissue that are not acceptable. An overall consideration is whether the patentee intended to protect subject matter but unintentionally failed to do so.

23.03.08 Intent to claim and error circumstance (Item 4, Form 1)

The patentee must satisfy the Commissioner that there was an intent to protect in the original patent that which is claimed in the reissue; otherwise reissue is not permitted. The onus is on the patentee to demonstrate his or her intent to protect to the Commissioner [36]. If this is not obvious from the original petition, the examiner requires evidence to that effect. Intent to claim may be established by evidence other than the specification [37]. The evidence of the inventors at the filing of the reissue petition cannot be used to establish

intent [38]. The priority document, the prosecution and the specification of the original application may be used to determine the intent of the patentee [39]. Other related applications may be used to establish intent [40]. The patentee may not make amendments based on facts not set forth in the petition, nor add new facts to the petition for reissue.

The circumstances that transpired and how they resulted in an outcome that was different from the intent must be set out. Assuming that the other requirements for reissue are satisfied, acceptable circumstances for reissue are as follows:

a) Error of mistake or omission by the agent [41]

b) Error in understanding by the inventor or the agent leading to filing two applications for subject matters that the examiner later considered to be the same subject matter [42]

c) Error arising from the pressure of meeting deadlines [43]

d) Error due to a mix-up in the agent's office practice or behaviour [44]

e) Error due to misunderstanding of the effect of prosecution in a foreign country [45]

f) Even though pertinent prior art was brought to the attention of the agent before allowance of the original patent, the agent did not appreciate the significance of this prior art [46].

g) An error that came about by a deliberate act of the patentee but whose consequences were unintentional or not appreciated [47]. However, a deliberate act can be interpreted as intentional even where the legal implications are not appreciated [48].

h) Error arising from a miscommunication between the agent and the inventor [49]. The health condition of those involved may be a factor.

A language barrier between the inventor and the agent is acceptable as a contributing factor [50].

23.03.09 Discovery of the error (Item 5, Form 1)

The patentee must provide evidence to explain how the error that led to the filing of the reissue was discovered [51]. Merely stating that an error was committed is not sufficient. Rather, the manner in which the knowledge of the new facts was obtained must be fully described and must be consistent with the explanation in items 3 and 4 of Form 1. The error must have been discovered after the patent was issued or at least after the final fee was paid [52].

23.03.10 Examination of the reissue specification

Following the acceptance of the petition for reissue, the amended specification or "reissue specification" is examined. A review of the prosecution history of the original patent is necessary when a reissue application is examined. When new or amended claims are submitted with the reissue, the examiner may conduct further prior art searches. If new prior art is discovered that could have been applied against the original application, it may be applied against the claims of the reissue application. Prior art is considered in view of the original claim dates [53] (broader claims may have different claim dates).

- If the reissue specification is acceptable, the reissue is granted.

    - For reissues based on patents issued on applications filed before October 1, 1989, the reissue patent is published and given a new patent number using the main numbering series in use prior to October 1, 1989. The World Intellectual Property Organization (WIPO) Standard Code ST.16 is "E" for this type of document.

    - For reissues based on patents issued on applications filed after October 1, 1989, the reissue patent is published with the same patent number as the original patent. However, the WIPO Standard Code ST.16 "E" indicates that it is a reissue patent.

- When the amended specification does not comply with the *Patent Act* or the *Patent Rules*, the defects are identified in an office letter written under subsection 47(1) of the *Patent Act*; this letter will specify a three-month time limit for response.

- Following the patentee's response, the examiner may

    - allow the reissue application if the amendments in the response overcome the defects and/or the patentee's arguments are found to be persuasive

    - refer the case to the Patent Appeal Board (PAB) if the specification still does not comply with the *Patent Act* and the *Patent Rules*. Following the PAB advice, the Commissioner may refuse the reissue application.

- If the patentee does not respond within the specified three-month time limit, the Commissioner may refuse the reissue application. However, the patentee may argue that the reissue application is in compliance with the *Patent Act* and/or file a new petition along with a further reissue fee provided that the four-year time period has not expired.

23.03.11 Effect of the reissue and maintenance fees

When the reissue is granted, only the reissued patent is then considered, without regard to how any change came to be made in it as a result of the reissue [54]. The reissued patent is entitled to the unexpired term granted to the original patent. Subsection 47(2) of the *Patent Act* clearly describes the effect of a reissue regarding pending action:

> 47(2) The surrender referred to in subsection (1) takes effect only on the issue of the new patent, and the new patent and the amended description and specification have the same effect in law, on the trial of any action thereafter commenced for any cause subsequently accruing, as if the amended description and specification had been originally filed in their corrected form before the issue of the original patent, but, in so far as the claims of the original and reissued patents are identical, the surrender does not affect any action pending at the time of reissue or abate any cause of action then existing, and the reissued patent to the extent that its claims are identical with the original patent constitutes a continuation thereof and has effect continuously from the date of the original patent.

This generally applies in a suit for infringement or when the plaintiff in an action can obtain at least part of the remedy claimed [55].

No maintenance fees apply to a reissue application (subsection 100(2) of the *Patent Rules*). However, maintenance fees are payable on the reissued patent under the same conditions as the original patent (subsections 101(1) and (2) of the *Patent Rules*), i.e. in accordance with the maintenance fee due dates that apply to the original patent.

23.04 Clerical error corrections

Clerical errors in any instrument of record at the Patent Office may be corrected with the permission of the Commissioner under the provisions of section 8 of the *Patent Act*. No instrument of record at the Patent Office is exempt from correction under section 8 of the *Patent Act*.

Clerical errors originating from the patentee or applicant may be corrected in response to a clerical error request from the patentee or applicant. In this situation, payment of the prescribed fee is required (Schedule II, Part IV, Item 19 of the *Patent Rules*). Third parties willing to point out clerical errors originating from the patentee or applicant should contact the patentee, the applicant or the patent agent of record.

Clerical errors originating from the Patent Office can be discovered during quality control verification, examination or other procedures at the Patent Office, or from observations made by the applicant, the patentee or a third party. Since this type of correction is an internal procedure, no fee is levied. Similarly, no fee is levied for clerical errors originating from mistakes made by foreign patent offices, including international authorities.

The Commissioner will review the request under section 8 of the *Patent Act* and will decide whether or not the correction will be made, based on the nature of the error made. The Commissioner has the discretion and authority to correct clerical errors [56]. The Commissioner is not obliged to warrant the correction once it has been determined that a clerical error exists [57].

During the prosecution of an application, section 35 of the *Patent Rules* provides that the applicant can correct clerical errors in any document relating to an application, other than a specification, a drawing or a document effecting a transfer or a change of name (mainly assignments), that are due to the fact that something other than what was obviously intended was written, under the authority of the Commissioner [58].

23.04.01 Content of a clerical error request

There is no clerical error request form. The patentee or applicant requests the correction by

- describing the corrections being sought in a letter to the Commissioner, with reference to the patent or application number, and explaining the circumstances that led to the mistake justifying the correction. An explanation of the circumstances that led to the mistake is important in determining the origin and nature of the mistake.

- if applicable, paying the prescribed fee on requesting correction of a clerical error under section 8 of the Patent Act (Schedule II, Part IV, Item 19 of the *Patent Rules*)

- optionally, attaching the official copy bearing the Patent Office seal (also known as the “grant copy”) to the letter

Refunds of fees paid with a request for clerical error correction are not mandated by section 4 of the *Patent Rules*. The fee is levied for request processing by the Patent Office and does not depend on the acceptance or refusal of the corrections. When a clerical error request is made without the payment of the prescribed fee and the Patent Office determines that this fee is required based on the facts, the Patent Office notifies the patentee or applicant that a fee must be paid to proceed with the consideration under section 8 of the *Patent Act*.

23.04.02 Unacceptable clerical error request

If a request for the correction of a clerical error is refused, the requester will be informed in writing of the reason(s) for its refusal. Since the Commissioner has the discretion to issue a certificate of correction, the court cannot substitute its discretion therefor [59]. The applicant or patentee can seek correction by other means of correction, such as disclaimer or reissue, as applicable given the circumstances.

A first category of unacceptable clerical error requests refers to documents that are not instruments of record at the Patent Office:

1) Correction of international patent applications for which Canada is not designated or elected. Such applications are not instruments of record at the Patent Office as they do not represent validly filed applications in the Patent Office [60].

2) An act of omission referring to documents or parts of documents that are not instruments of record at the Patent Office

3) The replacement of entire parts of a patent or patent application, such as a complete description or a claim in its entirety, referring to material that is not an instrument of record

A second category of unacceptable clerical error requests refers to mistakes that are not clerical errors by nature:

4) Correction of a claim or claims due to lack of antecedence of some terms or expressions

5) Correction of translation mistakes (translation mistakes are not transcription mistakes)

A third category of unacceptable clerical error requests refers to corrections negatively affecting the rights of others:

6) Modification backdating the priority date [61], owing to a mistake by the applicant or patentee (Chapter 7 of MOPOP provides information about requesting priority)

7) Corrections having the effect of broadening the claims of a patent

8) Correction or revocation of a dedication or disclaimer of rights [62]

23.04.03 Effect of a clerical error correction

When the decision regarding a request to correct a clerical error is positive and affects a document registered at the Patent Office, the requester is informed by an office letter that the correction has been made and receives a certificate of correction listing all the changes applied to the instrument of record. For a granted patent, the certificate of correction is accompanied by a copy of the cover page, bearing the official stamp “see certificate - Correction - Article 8 voir certificat,” and a copy of all the pages affected by the correction, bearing the official stamp “Section 8 Correction see certificate - Correction - Article 8 voir certificat.” The Patent Office records are corrected accordingly.

The patent or patent application has to be read as it has always been read in its corrected form.

Endnotes for Chapter 23

1. Monsanto Co. v. Commissioner of Patents, [1975] 18 C.P.R. (2d) 170 at 178, reversed on other grounds, [1976] 28 C.P.R. (2d) 118.

2. Trubenizing Process Corp. v. John Forsyth, Ltd., [1942] 2 C.P.R. 89 at 106-107, reversed on other grounds, [1943] 3 C.P.R. 1

3. Standal's Patents Ltd. et al. v. Swecan International Ltd. et al., [1989] 28 C.P.R. (3d) 261 at 276

4. Monsanto Co. v. Commissioner of Patents, [1975] 18 C.P.R. (2d) 170 at 176-177, reversed on other grounds, [1976] 28 C.P.R. (2d) 118.

5. International Vehicular Parking Ltd. v. Mi-Co Meter (Canada) Ltd. and Guelph, [1948] 9 C.P.R. 97 at Sec. II, p. 112

6. ICN Pharmaceuticals, Inc. et al. v. Canada (Patented Medicine Prices Review Board), [1996]

   66 C.P.R. (3d) 45, affirmed 68 C.P.R. (3d) 417

7. Cooper & Beatty v. Alpha Graphics Ltd. et al., [1980] 49 C.P.R. (2d) 145 at 164

8. Canadian Celanese Ltd. v. B.V.D. Co. Ltd., [1939] 2 D.L.R. 289 at 294

9. Curl Master Mfg. Co. Ltd. v. Atlas Brush Ltd., [1967] 52 C.P.R. 51 at 72-73, reversing 48 C.P.R. 67 (also indexed as [1967] SCR 514 at 531-533)

10. Northern Electric Co. Ltd. et al. v. Photo Sound Corp. et al., [1936] S.C.R. 649 at 653

11. Curl Master Mfg. Co. Ltd. v. Atlas Brush Ltd., [1967] 52 C.P.R. 51 at 74, reversing 48 C.P.R. 67 (also indexed as [1967] SCR 514)

12. Mobil Oil Corp. et al. v. Hercules Canada Inc., [1994] 57 C.P.R. (3d) 488 at 501, reversed on other grounds, [1995] 63 C.P.R. (3d) 473
    Commissioner's Decision No. 326, Application No. 193998, [1976] at 13

13. Farbwerke Hoechst A.G. etc. v. Commissioner of Patents, [1966] 50 C.P.R. 220 at 255-256 & 259 (also indexed as [1966] S.C.R. 604 at 615 & 617)
    Fuso Electric Works et al. v. Canadian General Electric Co. Ltd., [1940] SCR 371 at 381 & 385
    Bergeon v. De Kermor Electric Heating Co. Ltd., [1927] Ex. C.R. 181 at 191-192

14. Commissioner's Decision No. 1081, Application No. 342,635 (now Patent No. 1,271,356), [1986] at 7

15. Curl Master Mfg. Co. Ltd. v. Atlas Brush Ltd., [1967] 52 C.P.R. 51 at 52 & 70-71, reversing 48 C.P.R. 67 (also indexed as [1967] SCR 514)

16. Commissioner's Decision No. 56, Application No. 40,555 (now Patent No. 872,729), [1971] at 7

17. Apotex Inc. v. Hoffmann La-Roche Ltd., [1987] 15 C.P.R. (3d) 217 at 218 & 242, affirmed 24 C.P.R. (3d) 289
    Urea Casale S.A. v. Stamicarbon B.V., [2002] 17 C.P.R. (4^{th}) 377 at 393, rev. 8 C.P.R. (4^{th}) 206

18. Mobil Oil Corp. et al. v. Hercules Canada Inc., [1994] 57 C.P.R. (3d) 489 at 501, reversed on other grounds 63 C.P.R. (3d) 473
    In Re: Application for patent of Khallil (now Patent No. 1,147,604), [1983] 2 C.P.R. (3d) 343 at 351
    Re: Hewlett-Packard Co. Application, [1989] 31 C.P.R. (3d) 463 at 468
    Curl Master Mfg. Co. Ltd. v. Atlas Brush Ltd., [1967] 52 C.P.R. 51 at 52 reversing [1965] 48 C.P.R. 67
    Apotex Inc. v. Hoffmann La-Roche Ltd., [1987] 15 C.P.R. (3d) 217 at 218, affirmed [1989] 24 C.P.R. (3d) 289

19. Burton Parsons Chemicals Inc. v. Hewlett-Packard (Canada) Ltd., [1976] 17 CPR (2d) 97, (also indexed as 1 [1976] SCR 555 at 568), reversing 10 C.P.R. (2d) 126, reversing 7 C.P.R. (2d) 198

20. Leonard v. Commissioner of Patents, [1913] 14 ExCR 351 at 360
Commissioner's Decision No. 141, Application No. 60,764 (now Patent No. 940,336), [1973] at 9
Northern Electric Company Ltd. v. Photo Sound Corp., [1936] SCR 657 at 659, 660, and 665-666

21. Commissioner's Decision No. 667, Application 271,054 (now Patent No. 1,089,582), [1980] at 5

22. Flexi-Coil Ltd. v. F.P. Bourgault Industries Air Seeder Division Ltd., [1990] 31 C.P.R. (3d) 529 at 536, affirmed [1991] 35 C.P.R. (3d) 154
Rothmans, Benson & Hedges Inc. v. Imperial Tobacco Ltd./Ltée, [1991] 35 C.P.R. (3d) 417 at 430, affirmed on other grounds, [1993] 47 C.P.R. (3d) 188

23. Commissioner's Decision No. 56, Application No. 40,555 (now Patent No. 872,729), [1971] at 6-7

24. Fuso Electric Works et al. v. Canadian General Electric Co. Ltd., [1940] S.C.R. 371 at 385
Farbwerke Hoechst A.G. etc. v. Commissioner of Patents, [1966] 50 C.P.R. 220 at 241
(also indexed as [1966] Ex. C.R. 91 at 109-110, affirmed, [1966] S.C.R. 604)

25. Fuso Electric Works et al. v. Canadian General Electric Co. Ltd., [1940] S.C.R. 371 at 378
Creations 2000 Inc. et al. v. Canper Industrial Products Ltd. et al., [1988] 22 C.P.R. (3d) 389, affirmed, [1990] 34 C.P.R. (3d) 178 at 407
Mobil Oil Corp. et al. v. Hercules Canada Inc., [1994] 57 C.P.R. (3d) 488 at 498 and 499, reversed on other grounds, [1995] 63 C.P.R. (3d) 473
Re: Hewlett-Packard Co. Application, [1989] 31 C.P.R. (3d) 463 at 470

26. Commissioner's Decision No. 1034, Application No. 342200, [1984] at 7

27. Re: Wahpeton Canvas Co. Application Reissue, [1989] 31 C.P.R. (3d) 434 at 446
Notice by Assistant Commissioner, 10 C.P.R. (2d) 230 at 236
Re: Application No. 100,628 of Film Corp. of America, [1972] 11 C.P.R. (2d) 283 at 288
Commissioner's Decision No. 420, Application No. 225,214 (now Patent No. 1,027,403), [1977] at 1

28. Commissioner's Decision No. 906, Application No. 330,333, [1981]

29. Re: Halbrite Well Services Co. Patent Application No. 616,196, [1993] 3 C.P.R. (4^{th}) 94 at 95
Commissioner's Decision No. 326, Application No. 193,998, [1976] at 9
Commissioner's Decision No. 134, Application No. 100,628 (now Patent No. 921,743), [1972] at 5

30. Re: Application of Wahpeton Canvas Co., [1989] 31 C.P.R. (3d) 434

31. Re: Halbrite Well Services Co. Patent Application No. 616,196, [1993] 3 C.P.R. (4^{th}) 94 at 95

32. Re: Application of Westinghouse Electric Corp., [1980] (now Patent No. 1,101,791), 63 C.P.R. (2d) 153 at 156

33. Re: Application of Hewlett-Packard Co., [1989] 31 C.P.R. (3d) 463 at 470

34. Re: Application for reissue of Wahpeton Canvas Co., [1989] 31 C.P.R. (3d) 434 at 451

35. Creations 2000 Inc. et al. v. Canper Industrial Products Ltd. et al., 22 C.P.R. (3d) 389 at 406, affirmed 34 C.P.R. (3d) 178

36. Mobil Oil Corp. et al. v. Hercules Canada Inc., [1994] 57 C.P.R. (3d) 489 at 498, reversed on other grounds, [1995] 63 C.P.R. (3d) 473 at 499

37. Northern Electric Company Limited v. Photo Sound Corp., [1936] S.C.R. at 659
Fuso Electric Works et al. v. Canadian General Electric Co. Ltd., [1940] S.C.R. 371 at 380

38. Mobil Oil Corp. et al. v. Hercules Canada Inc., [1994] 57 C.P.R. (3d) 489 at 499, reversed on other grounds, [1995] 63 C.P.R. (3d) 473
Commissioner's Decision No. 1095, Application No. 400,496 (now Patent No. 1,220,002), [1986] at 6

39. Northern Electric Company Ltd. v. Photo Sound Corporation, [1936] S.C.R. at 649 and 635
Mobil Oil Corp. et al. v. Hercules Canada Inc., [1994] 57 C.P.R. (3d) 489 at 498 and 499, reversed on other grounds, [1995] 63 C.P.R. (3d) 473
Commissioner's Decision No. 1173, Application No. 615,585 (now Patent No. 1,258,156), [1992]
Commissioner's Decision No. 326, Application No. 193,998, [1976] at 10
Commissioner's Decision No. 77, Application No. 9,562 (now Patent No. 930,656), [1971] at 3
Commissioner's Decision No. 134, Application No. 100,628 (now Patent No. 921,743), [1972] at 4
Commissioner's Decision No. 1066, Application No. 379,817 (now Patent No. 1,217,519), [1986] at 9

40. Commissioner's Decision No. 326, Application No. 193,998, [1976] at 11 and 12

41. Burton Parsons Chemicals Inc. v. Hewlett-Packard (Canada) Ltd., [1976] 17 CPR (2d) 97 at 108, (also indexed as 1 [1976] SCR 555 at 568), reversing 10 C.P.R. (2d) 126, reversing 7 C.P.R. (2d) 198

42. Re: Application of Westinghouse Electric Corp., [1980] (now Patent No. 1,101,791), 63 C.P.R. (2d) 153 at 156

43. Cabot Corp. v. 318602 Ontario Ltd., [1988] 20 C.P.R. (3d) 132 at 134

44. Mobil Oil Corp. et al. v. Hercules Canada Inc., [1994] 57 C.P.R. (3d) 489 at 498, reversed on other grounds, [1995] 63 C.P.R. (3d) 473
Burton Parsons Chemicals Inc. v. Hewlett-Packard (Canada) Ltd., [1976] 17 CPR (2d) 97 at 108, (also indexed as 1 [1976] SCR 555 at 568), reversing 10 C.P.R. (2d) 126, reversing 7 C.P.R. (2d) 198

45. Commissioner's Decision No. 56, Application No. 40,555 (now Patent No. 872,729), [1971] at 6-7

46. Commissioner's Decision No. 40, Application No. 1,820 (now Patent No. 866,300), [1970] at 6

47. Mobil Oil Corp. et al. v. Hercules Canada Inc., [1994] 57 C.P.R. (3d) 489 at 500, reversed on other grounds, [1995] 63 C.P.R. (3d) 473
Hydril Patent Application No. 616,666, [1997] 85 C.P.R. (3d) 503 at 509

48. Commissioner's Decision No. 906, Application No. 330,333, [1981] at 10

49. Curl Master Mfg. Co. Ltd. v. Atlas Brush Ltd., [1967] 52 C.P.R. 51 at 69 reversing [1965] 48 C.P.R. 67

50. Commissioner's Decision 1173, Application No. 615,585 (now Patent No. 1,320,323), [1992] at 8-9
Commissioner's Decision 123, Application No. 96,160 (now Patent No. 921,510), [1972] at 2

51. Paul Moore Co. Ltd. v. Commissioner of Patents, [1979] 46 C.P.R. (2d) 5 at 10
Commissioner's Decision No. 104, Application No. 104,168 (now Patent No. 914,704), [1972] at 2
Commissioner's Decision No. 26, Application No. 975,082 (now Patent No. 862,687), [1970]

52. Commissioner's Decision No. 1093, Application No. 371,218 (now Patent No. 1,230,339), [1986] at 6
Commissioner's Decision No. 1173, Application No. 615,585 (now Patent No. 1,258,156), [1992]

53. Energy Absorption Systems Inc. v. 2859-7888 Québec Inc. et al., [1993] 53 C.P.R. (3d) 397 at 399

54. O'Cedar of Canada Ltd. v. Mallory Hardware Products Ltd., [1955], 24 C.P.R. 103 at 132

55. Continental Can Co. of Canada Ltd. v. Wainberg, [1969] 61 C.P.R. 159 at 160

56. Bristol-Myers Squibb Co. v. Canada (Commissioner of Patents), [1998] 82 C.P.R. (3d) 192 at 197, affirming [1997] 77 C.P.R. (3d) 300. "The current section 8 no longer requires a certificate but maintains the requirement that the correction be made under the authority of the Commissioner, ..."

57. Bayer Aktiengesellschaft v. Commissioner of Patents, [1980] 53 C.P.R. (2d) 70 at 74. "There is nothing in the circumstances contemplated by s. 8 that would lead me to conclude that the respondent is obliged to issue a certificate of correction once he determines that what is sought to be corrected is a clerical error. It is in his discretion to do so. The Court cannot substitute its discretion for his."
The Upjohn Co. v. Commissioner of Patents et al., [1983] 74 C.P.R. (2d) 228 at 232-233

58. Bristol-Myers Squibb Co. v. Canada (Commissioner of Patents), [1998] 82 C.P.R. (3d) 192 at 197, affirming [1997] 77 C.P.R. (3d) 300. "... and the current rule 35 provides that the correction is to be made by the applicant, ostensibly under the authority of the Commissioner."

59. Bayer Aktiengesellschaft v. Commissioner of Patents, [1980] 53 C.P.R. (2d) 70 at 74

60. Celltech Ltd. v. Canada (Commissioner of Patents), [1993] 46 C.P.R. (3d) 424 at 435 & 441, affirmed [1994] 55 C.P.R. (3d) 59

61. Bristol-Myers Squibb Co. v. Canada (Commissioner of Patents), [1998] 82 C.P.R. (3d) 192 at 199-200, affirming [1997] 77 C.P.R. (3d) 300

62. Parke Davis, [2001] 14 C.P.R. (4^{th}) 335 para 102 to 107, reversed on other grounds 2002 FCA 454

Chapter 24
Maintenance fees

24.01 Scope of this chapter

This chapter outlines the Patent Office policy respecting the fees to be paid to maintain patent applications and patents, and the procedures and time limits relating to the payment of maintenance fees.

24.02 Maintenance of patent applications

An applicant who files a patent application in Canada after October 1, 1989 must pay maintenance fees for prescribed periods in order to keep the application in effect (subsection 27.1(1) of the *Patent Act*).

Divisional applications carry their own maintenance fees, separate from the parent application. Since a properly filed divisional application will bear the filing date of the parent application, a divisional application is, at the time of filing, subject to fees to maintain the application in effect. Such fees will be calculated from the filing date of the parent application and are payable upon filing of the divisional application (subsections 99(3), and 154(3) of the *Patent Rules*). For example, if a divisional application is to be filed 40 months after the parent application, maintenance fees for the 2nd and 3rd years have to be paid upon of the divisional application.

Applications filed under the provisions of the Patent Cooperation Treaty and entering the national phase in Canada must pay maintenance fees in accordance with part VI of Schedule 2 of the *Patent Rules*. It should be noted that the international filing date is the date on which the maintenance fee Schedule is based.

Maintenance fees do not have to be paid on an application for reissue of a patent (sections 101, 156 and 182 of the *Patent Rules*). The applicant must continue to pay maintenance fees on the patent being reissued.

24.02.01 Due dates for application maintenance fees

In order to maintain a patent application in effect, an applicant must pay maintenance fees for each one-year period from the second anniversary of the filing date of the application. Whether or not the application issues to patent the maintenance fees will continue to be due on the same schedule until the last payment is made before the nineteenth anniversary, which covers the period from the nineteenth anniversary to the twentieth anniversary, which represents the full term of the patent. The time limit for paying each maintenance fee is given in Item 30, Part VI of Schedule II of the *Patent Rules*. Part VI of Schedule II of the *Patent Rules* is reproduced in section 25.06 of the present manual.

The maintenance fee for an application must be paid before the first day of the one-year period the fee covers. For example, the maintenance fee covering the one-year period ending on the fifth anniversary of the filing of the application must be paid on or before the fourth anniversary of the filing date.

Any or all of the maintenance fees for a particular application or a patent may be paid in advance.

Time limits for payment of maintenance fees cannot be extended.

24.02.02 Responsibility for payment of maintenance fees for applications

Only the applicant or the authorized correspondent shall pay maintenance fees. The amounts are set forth in Item 30, Part VI of Schedule II of the *Patent Rules*. The authorized correspondent is responsible for ensuring the timely payment of maintenance fees. The Patent Office will send a reminder to the authorized correspondent that the payment of the first maintenance fee is approaching. This will be a one time notice mailed approximately three months in advance of the second anniversary of the application's filing date.

24.02.03 Non-payment of application maintenance fees

Non-payment of maintenance fees will result in abandonment of the application under subsection 73(1) of the *Patent Act*. The authorized correspondent will normally be

advised in a notice of abandonment that applicant's application is abandoned for failure to pay the maintenance fee by the due date. For details on the reinstatement procedure for abandoned applications (see section 20.08 of the present manual).

24.03 Maintenance of patents

Maintenance fees for patents issued on the basis of applications filed after October 1, 1989 are payable for each one year period between the second and twentieth anniversaries of the date of filing of the application in Canada. Maintenance fees for patents issued on or after October 1, 1989 on the basis of an application filed before October 1, 1989 are payable for each one year period between the second and the seventeenth anniversaries of the date on which the patent was issued.

No maintenance fee for a patent is due for any period where a maintenance fee was paid to maintain the patent application in effect.

Maintenance fees for reissue patents are due at the same times and for the same periods as the original patent for the unexpired term of the original patent. No fee to maintain the rights accorded to a reissue patent is payable for any period where a maintenance fee was paid to maintain the original patent or to maintain the application for the original patent (section 101 of the *Patent Rules*).

24.03.01 Due dates for patent maintenance fees

Maintenance fees are due before the first day of each of the one-year periods they cover. For example, payment is due on or before the eleventh anniversary for the one year period ending on the twelfth anniversary. The time limits for maintenance fees for patents are given in Items 31 and 32 of Part VI of Schedule II of the *Patent Rules*, included as Section 25.06 of this manual.

Late payment of the maintenance fees for patents are also accepted by the office if the payment is made within the one year period the fee covers and the prescribed late payment fee is also paid. For example, the maintenance fee for the one year period ending on the seventeenth anniversary of the filing date can be made, with the

additional fee for late payment, on or before the seventeenth anniversary date. Any or all of the maintenance fees for a particular application or a patent resulting from that application may be paid in advance.

The time limits for payment of maintenance fees for patents cannot be extended.

24.03.02 Responsibility for payment of maintenance fees

The patentee is responsible for ensuring the timely payment of maintenance fees. The Patent Office will not send a reminder to the patentee that a date for the payment of a maintenance fee is approaching.

24.03.03 Non-payment of patent maintenance fee

A patent is deemed to have lapsed at the expiration of the time specified in Part VI of Schedule II of the *Patent Rules* (subsection 46(2) of the *Patent Act*) for payment of maintenance fees. A lapsed patent cannot be revived. See also section 20.09 of MOPOP on Lapsed Patent. If the maintenance fee on a patent is not paid on or before the anniversary date the Patent Office will normally inform the patentee that a late payment fee must be paid within one year following the anniversary or the patent will lapse.

24.04 Schedule of maintenance fees

The tariff of the maintenance fees are listed in Part VI of Schedule II (Section 3) of the *Patent Rules*, and in section 25.06 of the present manual.

24.05 Maintenance fee information on the Canadian Patent Database (CPD)

Maintenance fee information is accessible on the administrative status page (“View administrative status”) of the Canadian Patent Database at:

(http://patents1.ic.gc.ca/intro-e.html).

Maintenance fee information includes the date and amount of the last payment received, the date and amount of the next payment if the applicant or grantee is a small entity type and the date and amount of the next payment if the applicant or grantee is a large entity type.

Expired status is defined as: “In cases where all maintenance fees required by section 46 of the *Patent Act* were paid, the day at the end of which the patent term expired, pursuant to section 44 or 45 of the *Patent Act*.

Chapter 25
Tariff of Fees (effective July 26, 2004)

25.00 Introduction

This chapter sets forth the various fees to be collected by the Patent Office for services rendered to its clients. The general provision for the charging of fees for service is section 12(1)(*e*), (*f*) and (*g*) of the *Patent Act* and section 3 of the *Patent Rules*. The fees are specified in Schedule II (Section 3) of the *Patent Rules*.

The fees are listed in the following Sections.

25.00.01 Transitional provisions (effective January 1st, 2004)

Maintenance fees paid before January 1, 2004, are paid according to the tariff of fees listed as items 30 to 32 of Schedule II of the *Patent Rules* as they read immediately before January 1, 2004. Maintenance fees paid after January 1, 2004, are paid according to the tariff of fees listed as items 30 to 32 of Schedule II of the *Patent Rules* as in force on January 1, 2004 (section 24 of the Transitional Provisions of the *Rules Amending the Patent Rules* SOR/2003-208).

For patent application deemed to be abandoned for failure to pay a prescribed fee before January 1, 2004, the amount of the fee that must be paid for the purposes of paragraph 73(3)(*b*) of the *Patent Act* to reinstate the application is the amount set out in Schedule II of the *Patent Rules* as they read on the date of abandonment (section 25 of the Transitional Provisions of the *Rules Amending the Patent Rules* SOR/2003-208).

For patent application filed on or after October 1, 1989, when a notice of allowance, pursuant to subsection 30(1) or 30(5) of the *Patent Rules*, is sent before January 1, 2004, the amount of the final fee that must be paid is set out in item 6(*a*) of Schedule II of the *Patent Rules* as they read immediately before January 1, 2004 (section 26 of the Transitional Provisions of the *Rules Amending the Patent Rules* SOR/2003-208).

25.01 Part I of Schedule II (Section 3) of the *Patent Rules* - Applications

Item	Service for which fees are charged or will be charged	Fee
Item 1	On filing an application under subsection27(2) of the *Patent Act*	$200 (Small entity) $400 (Large entity)
Item 2	On completing an application under subsection 94(1) of the *Patent Rules* or on avoiding a deemed abandonment under subsection 148(1) of the *Patent Rules*	$200
Item 3	On requesting examination of an application under subsection 35(1) of the *Patent Act*	
	(*a*) if the application has been the subject of an international search by the Commissioner	$100 (Small entity) $200 (Large entity)
	(*b*) except if paragraph (*a*) applies	$400 (Small entity) $800 (Large entity)
Item 4	On requesting the advance of an application for examination under section 28 of the *Patent Rules*	$500
Item 5	On filing an amendment under subsection 32(1) of the *Patent Rules*, after a notice is sent pursuant to subsection 30(1) or (5) of the *Patent Rules*	$400
Item 5	On filing an amendment under subsection 32(1) of the *Patent Rules*, after a notice is sent pursuant to subsection 30(1) or (5) of the *Patent Rules*	$400
Item 6	Final fee under subsection 30(1) or (5) of the *Patent Rules*	
	(*a*) For applications filed on or after October 1, 1989:	
	(i) basic fee	$150 (Small entity) $300 (Large entity)
	(ii) plus, for each page of specification and drawings in excess of 100 pages	$6
	(*b*) For applications filed before October 1, 1989:	
	(i) basic fee	$350 (Small entity) $700 (Large entity)
	(ii) plus, for each page of specification and drawings in excess of 100 pages	$4
Item 7	On requesting reinstatement of an abandoned application	$200
Item 8	On applying for restoration of a forfeited application under subsection 73(2) of the *Patent Act* as it read immediately before October 1, 1989	$200

25.02 Part II of Schedule II (Section 3) of the *Patent Rules* - International Applications

Item	Service for which fees are charged or will be charged	Fee
Item 9	Transmittal fee under Rule 14 of the Regulations under the PCT	$300
Item 9.1	Search fee under Rule 16 of the Regulations under the PCT	$1,600
Item 9.2	Additional fee under Rule 40 of the Regulations under the PCT	$1,600
Item 9.3	Preliminary examination fee under Rule 58 of the Regulations under the PCT	$800
Item 9.4	Additional fee under Rule 68 of the Regulations under the PCT	$800
Item 10	Basic national fee under paragraph 58(1)(*c*) of the *Patent Rules*	$200 (Small entity) $400 (Large entity)
Item 11	Additional fee for late payment under subsection 58(3) of the *Patent Rules*	$200

25.03 Part III of Schedule II (Section 3) of the *Patent Rules* - Patents

Item	Service for which fees are charged or will be charged	Fee
Item 12	On filing an application to reissue a patent under section 47 of the *Patent Act*	$1,600
Item 13	On making a disclaimer to a patent under s.48 of the *Patent Act*, or of the *Patent Act* as it read immediately before October 1, 1989	$100
Item 14	On requesting re-examination of a claim or claims in a patent under subsection 48.1(1) of the *Patent Act*	$1,000 (Small entity) $2,000 (Large entity)
Item 15	On requesting registration of a judgment under section 62 of the *Patent Act* , or of the *Patent Act* as it read immediately before October 1, 1989	$50
Item 16	On presenting an application to the Commissioner under subsection 65(1) of the *Patent Act*:	
	(*a*) for the first patent to which the application relates	$2,500
	(*b*) for each additional patent to which the application relates	$250
Item 17	On requesting an advertisement of an application under subsection 65(1) of the *Patent Act* in the *Patent Office Record* in accordance with subsection 68(2) of the *Patent Act*	$200
Item 18	On requesting publication in the *Patent Office Record* of a notice listing the patent numbers of patents available for license or sale, other than at the time of issuance of the patent, for each patent number listed	$20

25.04 Part IV of Schedule II (Section 3) of the *Patent Rules* - General

Item	Service for which fees are charged or will be charged	Fee
Item 19	On requesting correction of a clerical error under section 8 of the *Patent Act*, or of the *Patent Act* as it read immediately before October 1, 1989	$200
Item 20	On giving notice to the Commissioner of a new representative or a change in address, or on supplying a new and correct address under subsection 29(3) of the *Patent Act*, or of the *Patent Act* as it read immediately after October 1, 1989	N/A (Repeal)
Item 21	On requesting registration of a document under section 49 or 50 of the *Patent Act*, or of the *Patent Act* as it read immediately before October 1, 1989, or under section 37, 38, 39 or 42 of the *Patent Rules*, for each patent or application to which the document relates	$100
Item 22	On applying for an extension of time under subsection 26 or 27 of the *Patent Rules*	$200
Item 22.1	Late payment fee under subsection 3.1(1) of the *Patent Rules*	Greater of 50$ and 50% of the amount of the fee that has not been paid

25.05 Part V of Schedule II (Section 3) of the *Patent Rules* - Information and copies

Item	Service for which fees are charged or will be charged	Fee
Item 23	On requesting information respecting a pending application under section 11 of the *Patent Act*	$100
Item 24	On requesting information on whether a patent has issued, on the basis of an application filed in Canada and identified by a serial number	$20
Item 25	On requesting a copy of a document, for each page	
	(*a*) if the person requesting makes the copy using Patent Office equipment	$0.50
	(*b*) if the Patent Office makes a copy	$1.00
Item 25.1	On requesting a copy in electronic form of a document,	
	(*a*) for each request	$10
	(*b*) plus, for each patent or application to which the request relates	$10
	(*c*) plus, if the copy is requested on a physical medium, for each physical medium requested in addition to the first	$10
	(*d*) plus, for each additional 10 megabytes or part of them exceeding 7 megabytes	$10
Item 26	On requesting a certified copy of a document:	
	(*a*) for each certification	$35
	(*b*) plus, for each page	$1
Item 26.1	On requesting a certified copy in electronic form of a document	
	(*a*) for each certification	$35
	(*b*) plus, for each patent or application to which the request relates	$10
	(*c*) plus, for each additional 10 megabytes or part of them exceeding 7 megabytes	$10
Item 27	On requesting that the Patent Office provide information concerning the status of a patent application or patent, for each application or patent	$15
	On requesting a copy of a Canadian patent identified by any of serial numbers 1 to 445,930	(Repeal, included in item 25)
Item 28	On requesting a copy of an audio magnetic tape	$50
Item 29	On requesting a transcript of an audio magnetic tape, for each page in the transcript	$50

25.06 Part VI of Schedule II (Section 3) of the *Patent Rules* - Maintenance Fees

Item	Service for which fees are charged or will be charged	Fee
Item 30	For maintaining an application filed on or after October 1, 1989 in effect, under ss.99 and 154 of the *Patent Rules*	Large entity Yr 2-4 - $100 Yr 5-9 - $200 Yr 10-14 - $250 Yr 15-19 - $450 (Small entity 50% of large entity)
Item 31	For maintaining the rights accorded by a patent issued on the basis of an application filed on or after October 1, 1989, under sections 100, 101, 155 and 156 of the *Patent Rules*	Large entity Yr 2-4 - $100 Yr 5-9 - $200 Yr 10-14 - $250 Yr 15-19 - $450 (Small entity 50% of large entity) Large entity including an additional fee for late payment Yr 2-4 - $300 Yr 5-9 - $400 Yr 10-14 - $450 Yr 15-19 - $650 (Small entity 50% of the applicable maintenance fee for a large entity plus $200 for the late payment)
Item 32	For maintaining the rights accorded by a patent issued on or after October 1, 1989 on the basis of an application filed before that date, under subsections 182(1) and (3) of the *Patent Rules*	Large entity Yr 2-4 - $100 Yr 5-9 - $200 Yr 10-14 - $250 Yr 15-19 - $450 (Small entity 50% of large entity) Large entity including an additional fee for late payment Yr 2-4 - $300 Yr 5-9 - $400 Yr 10-14 - $450 Yr 15-19 - $650 (Small entity 50% of the applicable maintenance fee for a large entity plus $200 for the late payment)

25.07 Part VII of Schedule II (Section 3) of the *Patent Rules* - Patent Agents

Item	Service for which fees are charged or will be charged	Fee
Item 33	On applying for entry on the register of patent agents under section15 of the *Patent Rules*	$350
Item 34	On notifying the Commissioner pursuant to subsection14(2) of the *Patent Rules*, of a proposal to sit for the whole or any part of the qualifying examination, per paper	$200 per paper for a maximum of 4 papers
Item 35	For maintaining the name of a patent agent on the register of patent agents pursuant to paragraph 16(1)(*a*) of the *Patent Rules*	$350
Item 36	On applying to the Commissioner for reinstatement on the register of patent agents under section 17 of the *Patent Rules*	$200