Intellectual Property

Principles and Practice

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A Word of Thanks

to their excellencies
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Dr. Hassan Khedr, Minister of Supply and Internal Trade,
for their interest and support.

Not only have they graciously provided forewords to this book, their interest in intellectual property and its use to promote Egypt's economic development have been a source of support for everyone connected with this endeavor. It has been a pleasure and an honor to be able to work with them on this important undertaking.

With much gratitude,

Judy Winegar Goans
February 2003

Foreword

Egypt recently took the bold step of adopting a comprehensive intellectual property code. Law No. 82 of 2002 replaced a collection of laws enacted over a period of more than fifty years, with a unified code that brings Egypt's intellectual property system into the 21st Century. The new code protects forms of intellectual property that were not even in existence when Egypt first began to protect intellectual property, adopts provisions to conform Egypt's laws with the highest international standards, and provides an integrated approach to this important branch of law.

This noteworthy accomplishment required substantial effort by a broad representation of Egypt's legal and technical experts, governmental officials and members of the People's Assembly and the Shura Council. This statute provides a legal framework for growth and development, but its implementation provides an even greater challenge. We must become proficient in the application of the intellectual property system to build Egypt's technological base, to enable growth, and to attract the foreign and domestic investment that will open doors for Egypt's bright, its industrious, and its creative figures.

In an attempt to fulfill the above-mentioned objectives, the issuance of this "Intellectual Property: Principals and Practice" book now in the hands of our dear reader comes within the context of other publications that address intellectual property subject matters. This book provides a comprehensive introduction to the subject of intellectual property. Difficult concepts are explained in terms that can be understood by the novice, but without sacrificing accuracy. Where appropriate, concepts are illustrated by examples and drawings with a distinctly Egyptian emphasis. This text is suitable for use in university courses on intellectual property and by others who seek to learn its principles. Attorneys, scientists, engineers and others who use the intellectual property system will also find it to be a useful addition to their reference libraries.

I would like to express my appreciation to Nathan Associates and its SIPRE and TIPRE Project staff for their efforts in producing this book, and the United States Agency for International Development for its support of this effort.

Dr. Mufied Shehab
Minister of Higher Education and
Minister of State for Scientific Research
February 2003

Foreword

Earlier this year, several years of work culminated in the signing and publication of the Law No. 82 for the Year 2002, which promulgated a new intellectual property code for Egypt. This therefore is an appropriate time to introduce a new book on intellectual property.

The Ministry of Supply and Internal Trade is concerned with the promotion of internal trade and the protection of businesses and consumers against predatory and deceptive practices. In this era of increasingly global trade, it is not always possible to separate the internal market from external trade. A positive business environment that promotes growth in the internal market also attracts foreign capital and investment – and a business environment that is unfriendly to foreign investors is also difficult for domestic businesses. In short, our goal must be to develop a business climate that is suitable for all participants in the market. Developing a positive climate requires a clear legal framework, decisive application of the market principles, and a dynamic and expeditious means of settling disputes. All these are necessary confidence-building measures for economic growth and prosperity.

This book puts intellectual property in a suitable context. It addresses the necessary technical and legal issues associated with obtaining intellectual property protection while also noting the underlying policy objectives. In this regard, it presents the intellectual property system as a means for promoting economic growth while also protecting the rights of consumers. The text is suitable both as a training manual and reference guide for officials charged with implementing the intellectual property system.

I would like to commend Nathan Associates' SIPRE and TIPRE Project teams for their efforts in making this volume a reality.

Dr. Hassan Khedr
Minister of Supply and Internal Trade
February 2003

Preface

This book is intended to provide an overview of intellectual property, as a reference for practitioners or as a textbook in a one-term survey course. It grew out of a perceived need for a text that did not presume a prior knowledge of the subject and yet offered sufficient depth to be useful to the intellectual property practitioner.

The materials in this text were primarily developed from lectures provided under projects managed by Nathan Associates, Inc., on behalf of the United States Agency for International Development and in coordination with Egypt's Ministry of Higher Education and State for Scientific Research and its Ministry of Supply and Internal Trade. Some of these materials were developed for use in training personnel of the industrial property offices; others for conferences and workshops for attorneys, industrial property agents, and businesspersons; and others for lectures in the Faculties of Law of Menoufia University, Ain Shams University, and Cairo University. Although the materials were developed for use in Egypt, the book's emphasis is international norms of protection, an essential element of international property law in view of the increasingly global nature of trade and therefore of intellectual property practice.

The authors would like to extend our appreciation to a number of people without whom this text might never have come into being. Foremost, of course, are their excellencies Dr. Mufied Shehab and Dr. Hassan Khedr for their support of with this endeavor.

I also want to acknowledge individuals who have played an important role in making this book a reality. Particular thanks are due to Mrs. Jaleen Moroney, TIPRE Chief of Party, who edited the English edition, arranged for translation and oversaw production of the book, and to Mr. Moustafa el Shafie for advice on Egyptian industrial property practice and as chief translator of the Arabic edition. In addition to his own personal efforts in translating multiple versions of the text, Mr. Moustafa supervised the final translation and provided advice on the interpretation of Arabic-language legal documents. Thanks are also due to Ms. Iman el-Naggar, Ms. Shimaa Barry, and Mr. Mohamed Abu El Leil, who joined Mr. Moustafa in completing the final translation, to Mr. Amr Hegazy for overseeing the electronic management of various drafts as well as translation advice, to Mr. Ahmed Lutfy for efforts in arranging for publication, and to our editors.

It would be impossible to mention all the people who have contributed in some way to the production of this text – the attorneys and industrial property agents, engineers and economists, Egyptian and foreign businesspersons, and law professors and law students, whose questions and answers helped to shape our thinking. It has been our privilege to work with Prof. Dr. Fawzi A. Elrefaie, President of the Academy of Scientific Research and Technology, Ministry of Higher Education and Scientific Research, and with Ambassador Dr. Adel Saleh Abdel-Meguid, Advisor to the Minister for International Affairs, Ministry of Supply and Internal Trade, whose assistance has been of immeasurable benefit, and with numerous other persons in the ministries responsible for Egypt's intellectual property system.

I would also like to acknowledge the contributions of all the staff of the SIPRE (Strengthening Intellectual Property Rights in Egypt) and TIPRE (Technical Assistance on Intellectual Property Rights in Egypt) Projects, whose efforts have contributed to this book in various direct and indirect ways. I would like to express my appreciation to Mrs. Amal Helal for sharing her extensive knowledge of trademark practice in Egypt; to Mrs. Abeer Mohamed for her work in translation; to Mrs. Dalia Mounir, Mrs. Elaine Strite, Mrs. Nagla Abdoun, Ms. Walaa Serag, Mr. Sayed Ismaiel, and Mr. Mohamed Ramadan, for numerous ways in which they have contributed to the overall effort of strengthening Egypt's intellectual property system.

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Finally, I would like to express my appreciation to my family for their patience during the time this volume was being prepared.

Judy Winegar Goans
February 2003

Acknowledgments

Most material in this book consists of the original work of its authors or brief quotations that are suitably referenced. However, in a few cases, we have incorporated works owned by others, whose rights should be acknowledged.

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The chapters on Patents and Industrial Designs use illustrative quotations and drawings from several U.S. patents.

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The chapter on Copyright and Related Rights makes extensive use of materials published by the U.S. Copyright Office for definitions and illustrative lists of various types of works. Charts on Works Protected by Copyright, beginning on page 97, quote from materials at www.loc.gov/copyright. Chapters concerning industrial property likewise incorporate definitions from materials published by the U.S. Patent and Trademark Office. The discussion of Protected subject matter, page 72, is taken from the Manual of Patent Examining Procedure, Chapter 15, www.uspto.gov/web/offices/pac/mpep/documents/1500.htm#chap1500, with minor adaptations to refer to industrial designs.

The marks *bimbim* and *Sakhr* appear on page 140 for illustrative purposes only and are the property of their owners.

About the Authors

Judy Winegar Goans is a registered patent attorney with more than 24 years of professional experience in intellectual property and international law. Her work falls into three main areas: technical legal assistance to help developing countries meet their international obligations in the field of intellectual property; training of legal professionals on intellectual property, and other institutional development activities; and developing strategies that use intellectual property to promote competitiveness. Before coming to Nathan Associates, Ms. Goans worked in the U.S. Patent and Trademark Office where, among other duties, she organized the Visiting Scholars Program. During the course of her career, her work has included drafting and legal analysis of intellectual property laws and regulations for compliance with international obligations; preparation and prosecution of applications to patent inventions and register trademarks; licensing of intellectual property; advising on the role of intellectual property in contributing to economic development; and institutional capacity-building. Ms. Goans formerly headed Nathan Associates' Strengthening Intellectual Property Protection in Egypt (SIPRE) Project and has consulted on intellectual property in many countries. She is also the author of a manual for technology transfer professionals. Ms. Goans holds a B.S. in Engineering Physics and a Doctor of Jurisprudence degree and is admitted to practice before the United States Supreme Court.

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David Weinstein is a trademark and copyright attorney with more than 34 years' experience in intellectual property. Mr. Weinstein served at the U.S. Patent and Trademark Office as both a trademark examiner and as an attorney for the Trademark Trial and Appeal Board. He is engaged in the private practice of intellectual property law, where he counsels on the evaluation, acquisition, development, legal protection and commercialization of intellectual property rights, trade secrets, and business information, and has served as a corporate trademark and copyright attorney. Mr. Weinstein has experience in drafting intellectual property laws and regulations; trademark prosecution and litigation; alternative dispute resolution; and teaching. He has served on the editorial boards of the *Trademark Reporter* and the *Journal of the Copyright Society of the U.S.A*. Mr. Weinstein has also written and spoken extensively on trademark and copyright, and has authored two reference books, one on copyright and another on protection of business, professional and brand names. Mr. Weinstein has provided technical assistance to Jordan, Egypt and Bulgaria in connection with the revision of their intellectual property laws to comply with TRIPS and has served as an intellectual property expert with the SIPRE and TIPRE Projects. Mr. Weinstein holds a Doctor of Jurisprudence degree.

Patricia Drost is a patent attorney and chemist with 21 years' experience in intellectual property. An expert in polymers, pharmaceutical delivery systems and anti-cancer methods and materials, she has worked for the Eastman Kodak Company as a patent agent and, since 1984, has been in private practice as a patent attorney. Ms. Drost handles all aspects of the preparation and prosecution of patent applications in the US Patent and Trademark Office. She also manages due diligence investigations, prepares infringement and validity opinions, and advises clients regarding licensing matters. In addition, Ms. Drost has consulted on intellectual property matters in Indonesia and in Egypt, where she developed guidelines for the examination of patent applications and taught under the auspices of the SIPRE Project. She is admitted to practice before the U.S. Patent and Trademark Office and in the Commonwealth of Virginia, the District of Columbia, the Court of Appeals for the Fourth Circuit, the Court of Appeals for the Federal Circuit, and the US Supreme Court. She holds a Doctorate of Jurisprudence.

INTRODUCTION TO INTELLECTUAL PROPERTY

Intellectual property is a field of law that deals with property rights in intangible things. It offers a means for promoting progress by protecting rights in new creations of the mind, and it rewards honest dealing and promotes consumer satisfaction by regulating certain aspects of business behavior. Intellectual property is chiefly used as a business tool, but it also recognizes certain non-economic values in creative works.

Intellectual property is generally divided into two main branches: *industrial property* and *copyright*. *Industrial property* includes inventions, marks, and a branch of law referred to as the *repression of unfair competition*. An *invention* is any new development in any field of endeavor. A *mark* is any sign or combination of signs capable of distinguishing the goods or services of one undertaking from those of another. *Unfair competition* includes any act contrary to honest commercial practices.

Intellectual Property

- *Industrial Property*
  - *inventions, marks, and the repression of unfair competition*
- *Copyright*
  - *works of authorship*

An inventor may keep an invention secret or request the statutory protection of a patent. Other innovations may be protected as industrial designs, plant varieties, utility models, or in accordance with a *sui generis*[1] system of protection. Also part of industrial property are certain forms of intellectual property related to the promotion or labeling of goods and services. These include marks, geographical indications, trade names, and trade dress.

Laws prohibiting unfair competition address a broad range of topics. Unfair competition law provides the legal basis for protecting trade secrets, preventing dilution or disparagement of marks, and providing redress for consumers against mislabeling and false advertising.

Copyright relates to works of authorship. A *work of authorship* is the expression of ideas in an original way, in a tangible form. Works of authorship span a great range of forms, from poetry to computer programs,

[1] *Sui generis* means "of its own kind," *i.e.*, not according to another system of protection.

from technical drawings to paintings and sculptures, and from music to architectural drawings.

Related to copyright is the branch of law referred to as *neighboring rights* or *related rights*, which protect the rights of publishers, producers and performers.

Historical background

The field of intellectual property is sometimes described as a new branch of law, but its roots are actually quite old. In ancient times, rulers sometimes offered rewards to persons who developed new things. While the prospect of such a reward provides an incentive, it offers little certainty that any particular inventor would come to the attention of the ruler or find sufficient favor to obtain a reward. This is especially true for inventions that are of benefit to ordinary people – improvements in the tools used in trade, for example, or household implements – even though these confer a great social benefit.

The Greek historian Phylarchos, near the end of the third century B.C., wrote that the rulers of the Greek city Sybaris issued patents for new foods.[2] The more common approach to encouraging innovation and progress was by offering prizes. The ancient Greeks held contests to recognize and reward outstanding achievements in many fields. The Olympic Games represented one such contest, but the Greeks also held contests on performances (flute playing, singing, acting, public speaking, reciting Homer, and dancing), the writing of tragedies and comedies, painting, poetry, sculpting and pottery, production of superior agricultural products, and even skills in the field of medicine and surgery.[3]

In more recent times, patent law developed from the practice of awarding monopolies. Monopolies have long been held in disfavor but were perpetuated informally since advances in knowledge were communicated through trade. In the Middle Ages, guilds were sometimes granted monopoly rights in order to attract their establishment, and thus acquire the technology represented by the guild, in a particular city or region.

[2] 1 *Lipscomb's Walker on Patents* 7 (1984) (*hereinafter Lipscomb*).
[3] Skoyles, John R., *Leviathan, ch. 2, http://www.skoyles.greatxscape.net/lv2.html (1997*).

An important distinction developed between a patent for a new invention and a monopoly on a product that is already known. Queen Elizabeth I of England awarded monopolies as a means for raising money for her government.[4] These monopolies applied to such staple items as salt, iron, playing cards, vinegar, steel, brushes, oil, and paper, among other commodities, as well as the transportation of certain other items.[5] These monopolies were so unpopular that the Parliament prohibited the granting of monopolies, and the Queen revoked the most obnoxious of these and allowed the rest to be tried in court.[6]

In the succeeding years, both statutes and court cases[7] drew a distinction between illegal monopolies and letters patent for a new invention.[8] Monopolies were disfavored, and illegal, because they deprived the public of something it previously had. By contrast, a patent for a new invention deprives the public of nothing because the subject matter – the invention - did not previously exist. An invention thus confers a public benefit by encouraging the inventor to disclose a new invention in exchange for the exclusive right to exploit that invention for a limited period of time. These three features – 1) a grant of exclusive rights by the government 2) for some new thing and 3) for a limited period of time – form the basic elements of the modern patent system.

By the Fifteenth Century, a patent system was beginning to take shape in Europe. Although several countries granted patents, novelty was not necessarily a feature of those patents, and patents of introduction remained a feature of the patent laws of some countries well into the last quarter of the Twentieth Century.[9]

[4] Elizabeth I was not the first to grant monopolies. State-awarded monopolies of iron and salt were established in China in the second century B.C. *See*, Wagner, Donald B., *The State and the Iron Industry in Han China* (Nordic Inst. of Asian Studies 2002), http://nias.ku.dk/books. Monopolies were generally not favored, however. In a proclamation in the year A.D. 480, the Emperor Zeno outlawed monopolies: "Iubemus ne quis prosua authoritate, vel sacro elicito rescripto, etc. Monopolium audeat exercere," quoted in Misselden, Edward, *Free Trade or, The Meanes To Make Trade Florish*, http://www.socsci.mcmaster.ca/~econ/ugcm/3ll3/misselden/freetrad.txt. (We order that no one will dare exercise a monopoly … of his authority or drawn from sacred rescript. *Also cited in* Choate, Robert A., *Cases and Materials on Patent Law 2d* (West Group 1981).

[5] *Lipscomb, op. cit.* at 9.

[6] *Lipscomb, op. cit.* at 13.

[7] England is a *common law* jurisdiction in which legal interpretations by appellate judges are binding on lower courts.

[8] *See, Darcy v. Allin (The Case of Monopolies),* 11 Coke 84b, 77 Eng. Rep. 1260 (1602).

[9] *Lipscomb, op. cit.* at 7.

Thou shalt not have in thy bag divers weights, a great and a small. Thou shalt not have in thine house divers measures, a great and a small. But thou shalt have a perfect and just weight, a perfect and just measure shalt thou have: that thy days may be lengthened in the land which the Lord thy God giveth thee. For all that do such things, and all that do unrighteously, are an abomination unto the Lord thy God.

– Deuteronomy 25:13-16

The development of trademark and unfair competition law arose from similarly ancient roots. Some of the most ancient laws regulate the behavior of merchants, especially contracts and weights and measures[10]. Drawings in Egyptian tombs show workers branding cattle, and quarry marks have been found on Egyptian structures dating from 4000 B.C.[11] Businesses have used signs to identify their services, and artisans have used marks to identify their goods, for thousands of years. In ancient Greece, potters signed their works, initially with the mark of their clans and later with their own names.[12]

The practice of marking goods was carried on in Europe through guilds. Guilds ensured standards of quality and regulated the conduct of their members, sometimes to the detriment of the community. Guilds' rules prohibited certain unfair acts such as enticing the customers or workers of another guild member, principles reflected (somewhat differently) in modern laws prohibiting false disparagement of the goods of another or soliciting breach of contract. To maintain the guild's monopoly in a particular market, guilds took steps to guarantee the quality of their goods and prevent dishonest dealing.[13] This included, in some cases, establishing a system of inspections.[14]

Modern intellectual property systems largely assumed their basic structure by the Nineteenth Century, although the process of making improvements continues today. The two major treaties in the field of intellectual property were adopted during that period, the Paris Convention for the Protection of

[10] The Book of Deuteronomy was written around 700 B.C. Bradshaw, Robert I., *Deuteronomy*, http://www.robibrad.demon.co.uk/deut.htm (1998). Other authors adopt dates ranging from approximately 1450-950 B.C.

[11] 1 *McCarthy on Trademarks and Unfair Competition* 3d §5.01.

[12] Skoyles, *op.cit*.

[13] Rempel, Gerhard, Guilds and Commerce (lectures), http://mars.acnet.wnec.edu/~grempel/courses/wc1/lectures/24guilds.html (2000).

[14] Jariwala, Nikhil, Medieval Professions, http://www1.enloe.wake.k12.nc.us/enloe/CandC/showme/careers.html (1998).

Industrial Property on March 20, 1883, and the Berne Convention for the Protection of Literary and Artistic Works on September 9, 1886. The adoption of intellectual property systems in many countries, and especially the pressure of growing international trade, prompted a need for international cooperation in the field of intellectual property. Egypt adopted a modern trademark law in 1939, patent law in 1949, and copyright law in 1952, making it one of the first countries in the Near East or Africa to adopt a modern intellectual property system. (These laws have been superseded by Law 82 for the Year 2002.)

Conceptual framework

One way to approach the subject of intellectual property is by the subject matter it protects. Traditionally, industrial property was thought of as relating to business and industry and copyright as relating to culture. To some extent, this division still holds. Inventions are largely in the province of science and engineering, agriculture and industry. The protection of marks and repression of unfair competition chiefly serves as a business tool. Music, art and literature are protected by copyright and are of interest to artists and academics.

Industry or Culture?

Eiffel Tower – Engineers Emile Nouguier and Maurice Koechlin proposed to build a metal tower for the 1889 World's Fair. Gustave Eiffel reached an agreement with these engineers and registered a patent for "a new design for building metal pylons to a height of more than 300m."

Statue of Liberty - Frédéric Auguste Bartholdi, a sculptor, received U.S. Patent No. 11,023 for a "Design for a Statue" for his work, Liberty Enlightening the World, better known as the Statue of Libertv.

Recent advances in technology have eroded the utility of this traditional division. Copyright still protects “literary works,” but these now include computer programs and technical manuals as well as textbooks, novels, and poetry. Works of visual art may as easily be technical drawings as works of fine art. At the same time, artists who are engaged in creating original designs for the appearance of useful objects may rely on the protection of industrial designs, which are squarely in the field of industrial property.

Another way to approach the field of intellectual property is to look at the policies served by each form of protection. At root, intellectual property is based on two basic policies, that it is beneficial to society to encourage the disclosure of new developments, and ensure honest dealing.

Patent and copyright laws serve the public interest by encouraging disclosure. The disclosure of new things – inventions or works of authorship – gives the public access to new things and promotes progress by allowing others to build on what has been disclosed. This is accomplished by offering the possibility of receiving a reward.

Laws on trademarks and the repression of unfair competition serve the public interest by discouraging dishonest business practices. This protects parties to commercial transactions against unscrupulous dealing and allows both merchants and the public to rely on representations made by commercial entities.

In this analysis, patent law is more akin to copyright and related rights than to trademarks or the repression of unfair competition. Both have the objects of encouraging those who are capable of creating new things – inventions or works of authorship – to invest the time and resources necessary to bring their creations from a strictly mental existence to a tangible form, and to share those creative works with the public. To achieve these ends, governments strike a bargain with the creator: make the necessary investment to create a new invention or work of authorship, and you may prevent others from copying it without your permission for a period of time specified by law, even though the invention has been disclosed or the work has been published.

Laws concerning marks and the repression of unfair competition also serve related policies. Trademarks promote honest commercial practices by identifying the source of goods, *i.e.*, the manufacturer or the retail merchant who supplies the goods. Trade names serve a similar purpose of identifying the business entity. Business practices that deceive consumers as to the source of goods are a classic example of unfair competition, as are other deceptive and unfair practices such as falsely disparaging the goods or services of a competitor, false labeling or advertising, or copying the trade dress – distinctive packaging – of a competitor so as to mislead the public.

Unfair competition law also protects trade secrets against discovery through unfair or dishonest means. Both consumers and merchants have a stake in

honest commercial practices. Although the field of unfair competition law originally developed to regulate relations between merchants, most of the same considerations affect consumers, and this branch of law is now often referred to as consumer protection law.

Intellectual property as a tool

Probably one of the most useful ways to approach the subject of intellectual property is to view it as a tool. Properly applied, intellectual property law can help to increase the value of intellectual creations and to promote economic development. It can help to turn an idea into a valuable commodity, protect an investment of labor, creativity, or capital, help a fledgling business establish market share and develop a reputation for excellence, and offer the security needed to obtain financial assistance. The task of the intellectual property practitioner is to identify aspects of ideas and information that can be legally protected, determine which forms of protection will be useful to the client, and assist clients in acquiring that protection.

The law does not protect every creative act or regulate every aspect of business. Ideas are valuable, yet intellectual property law does not protect *ideas per se*. Only certain embodiments of an idea receive legal protection. The mere idea for a new product cannot be patented, but its completed conception, including how to make and use the product, may be a patentable invention.

> *"If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of everyone, and the receiver cannot dispossess himself of it.*
>
> *– Thomas Jefferson, American President and inventor*

Likewise, information is valuable, but intellectual property law does not protect *information per se*. *Undisclosed information* may be protected against unauthorized disclosure, even when it is permissible to disclose elements of that information. Copyright protects the form in which ideas and information are expressed but not the ideas or information itself. These important distinctions will be explored in greater depth in other sections.

Moral or non-economic rights

Although intellectual property is chiefly exploited as a business tool, it also recognizes certain moral rights (*droit moral*). The concept of moral rights is chiefly implemented in the area of copyright, where authors have the right to exercise certain types of control over their works to prevent actions that would be prejudicial to their honor or reputation. These non-economic rights include the right to be known as the author, or prevent false attributions of authorship, as well as to prevent changes in certain types of works that would tend to damage the author's reputation. With regard to inventions, the chief non-economic right is the right of the inventor to be named as such in any patent application that may be filed. A doctrine of moral rights is less fully developed for newer forms of intellectual property, although unfair competition law may apply.

Disclosure

The disclosure of new creative works is important because it places the underlying ideas into the public arena, where others may begin to build on them. Inventors and authors are not required to disclose their creations. They may choose to maintain them as trade secrets or "undisclosed information" if the author or inventor is satisfied to do so.

Disclosure is an essential element of the patent system – part of the *quid pro quo* for obtaining exclusive rights. Inventors must generally choose whether to maintain a new invention as undisclosed information or to rely on statutory forms of protection such as patents, while authors have copyright protection for works of authorship even if those works are unpublished.

Intellectual property and economic development

Intellectual property has historically been used to promote economic development. At the microeconomic level, patents, copyright, and similar forms of intellectual property provide a means by which innovators and investors can recover the investment of time and money needed to bring a new product to the market. We offer such incentives to encourage disclosure.

To obtain a patent, an inventor is required to make a technical disclosure that will enable persons skilled in the relevant area of technology to make

and use the invention. That ensures that, at the end of the patent term, anyone with the relevant technical skills will be able to use the invention. It also makes that knowledge available to others who would build on it. This is important because economists have found that long-term economic growth is largely due to technological change.[15] In one such study, the Economics Nobel Laureate Professor Robert Solow of the Massachusetts Institute of Technology concluded that the bulk of the increase of economic output in the United States was the result of technological advances.[16]

The other major theme of intellectual property is ensuring honest dealings—between merchants, and between merchant and consumer. The Paris Convention refers to this aspect of intellectual property as "the repression of unfair competition." Preventing dishonest and deceptive practices, and offering an effective remedy when they occur, is essential to promoting economic growth. The lack of such protection slows sales, as consumers are more cautious about purchases when they lack confidence in merchants and know that they have no assurance of a remedy if goods are not as promised. It also makes it more difficult to establish new businesses, as distrustful consumers are reluctant to take a chance on an unknown vendor, particularly for the most profitable merchandise.

Finally, it is difficult for merchants to establish a reputation for honesty and quality if the market permits such acts of unfair competition as trademark infringement, palming off goods as those of another or falsely disparaging a competitor. This is clearest with trademark counterfeiting, where the manufacturer of a quality product may learn of the existence of counterfeit products from complaints of disappointed consumers who purchased a counterfeit item in the belief it was genuine.

At a macroeconomic level, intellectual property promotes economic development by encouraging domestic innovation and foreign direct investment, which represents a major source of technology transfer. The intellectual property system creates a framework in which developing

[15] Mansfield, Edwin, "Intellectual Property Rights, Technological Change, and Economic Growth," Walker, Charls E., and Bloomfield, Mark A, *eds*., *Intellectual Property Rights and Capital Formation in the Next Decade* 5-6, American Council for Capital Formation Center for Policy Research (University Press, Lanham, MD, 1988).

[16] Prof. Solow studied the non-farm economy during the period 1909-1949 and concluded that the bulk of the increase, other than that due to increasing population and consequent increasing work force. Walker and Bloomfield, *op. cit*. at 100.

countries can participate jointly in the economic activities of the developed world.

A country's ability to attract foreign investment is related to the strength of its intellectual property system. In a study for the World Bank, the eminent economist Dr. Edwin Mansfield surveyed 100 major U.S. firms in six manufacturing industries to determine the importance of intellectual property in influencing decisions to make various types of investments. The percentage of these firms indicating that intellectual property protection has a major effect on their foreign direct investment decisions is shown in the table below.[17] While the degree of importance varied, intellectual property was a factor in the decisions of every industry and weighed more heavily for types of investment that transferred more technology.

Innovation and Public Benefit

Social return is the term that economists use to describe the benefit from an investment received by society as a whole, as opposed to the private return that may be achieved by the owner of the new work.

Intellectual property and the public interest

On the whole, the public interest favors strong protection of intellectual property. A strong intellectual property system promotes innovation, which benefits the public by offering solutions to problems. By offering a system of exclusive rights, it promotes a more diverse market by creating an environment in which an innovator can compete with existing concerns. A strong intellectual property system also promotes honest dealing by merchants, which protects the rights of consumers. It also benefits honest merchants, who can develop a reputation for quality, and promotes employment by promoting sales.

On the other hand, there are situations in which private rights must give way to urgent needs. In such situations, it is easy to overreact and destroy a system that is highly beneficial. Finding the public interest requires careful analysis of the facts and consideration of all the options.

[17] Mansfield, Edwin**,** *Intellectual Property Protection, Foreign Direct Investment, and Technology Transfer, IFC Discussion Paper No. 19, World Bank,* www.ifc.org/economics/pubs/dp19/dp19.doc (1991).

	Type of Facility					
Industry	Sales and Distribution	Rudimentary Production and Assembly	Manufacturing (components)	Manufacturing (complete products)	Research and Development	**Mean**
Chemical	19	46	71	87	100	65
Transportation equipment	17	17	33	33	80	36
Electrical equipment	15	40	57	74	80	53
Food	29	29	25	43	60	37
Metals	20	40	50	50	80	48
Machinery	23	23	50	65	77	48
Mean	**20**	**32**	**48**	**59**	**80**	**48**

Table 1. Percentage of firms saying that intellectual property has a major effect on their investment decisions, by industry and type of facility. Edwin Mansfield, *Intellectual Property Protection, Foreign Direct Investment, and Technology Transfer, IFC Discussion Paper No. 19, World Bank.*

The central policy debate in intellectual property is between critics of the intellectual property system and advocates of strong intellectual property protection. Critics sometimes argue that particularly valuable and useful creations are so necessary to the public, or serve such an important public interest, that should be made freely available to the public, while advocates argue that denying or weakening protection undermines the entire system.

On the whole, the balance of the argument is in favor of advocates, although situations may arise in which it becomes necessary to invade private rights. Such situations are better addressed as *exceptions,* which help to define the limits of a general policy that provides strong protection. Exceptions will be addressed in later sections.

One public interest served by intellectual property is to encourage the making and development of inventions. Several studies have been conducted to measure the *social return* from innovations. Typical results were reported in a study conducted by Nathan Associates, which found a social rate of return of 70%.[18] By contrast, the private rate of return is substantially lower, less than half the social rate of return,[19] meaning that the public derives more benefit from innovations than the inventor.

This disparity between the high social rate of return on an investment in new technology and the relatively low private rate of return occurs because much of the return from an innovation is appropriated by imitators. One study found that imitators gain access to details concerning new products and processes rapidly, often within a year of their development.[20]

The intellectual property system makes it possible to derive a private benefit from the innovation. It encourages the necessary investment of time and other resources by allowing innovators to capture some of the economic benefit of their innovations. If there is no prospect of a reward, inventors may devote their efforts to some activity other than making and perfecting an invention or, having made the invention, they may choose to keep their inventions secret.

[18] Robert A. Nathan Associates, "Net Rates of Return on Innovations," reported in Walker and Bloomfield, *op.cit*. at 6

[19] E. Mansfield *et al.*, "Social and Private Rates of Return from Industrial Innovations," Quarterly Journal of Economics (May 1977), cited in Walker and Bloomfield, *op.cit.* at 8.

[20] E. Mansfield, "How Rapidly Does New Industrial Technology Leak Out?" cited in Walker and Bloomfield, *op. cit.* at 8.

From a policy perspective, the rewards of the patent system work as an incentive only prospectively, that is, the incentive that is offered is the *prospect* of exclusive rights and whatever benefits may be derived from that exclusivity. Once a new work is made and disclosed, the public has had the benefit of its bargain.

Having held out the prospect of a reward, a government that then reneges on its bargain by denying or limiting the exclusive rights accorded by a patent runs the risk that it will destroy confidence in the system that encouraged the making of the invention. Such actions should be taken only rarely, for compelling reasons, and under strict limitations that do not threaten confidence in the patent system itself.

Public policy favors offering the greatest incentives – and therefore the greatest protection - for the most important inventions. However, it is these inventions that most tempt governments to invade the patent right. Denying the benefits of the patent system because an invention is highly beneficial to the public creates a disincentive to the making of important inventions and encourages inventors to restrict their time and energy to unimportant inventions.

Invading the patent right is counterproductive in another way: it discourages investment that may be necessary to make the benefits of the invention available to the public by placing a product on the market or putting a process into commercial use. Most inventions require some degree of investment to convert them from a completed concept to something of benefit to the public.

Even a relatively simple mechanical device typically requires some investment to move from the laboratory bench to the market. Development of an invention involves such steps as building a working model or demonstrating proof of principle, identifying a suitable manufacturing technique, identifying possible manufacturers, possibly investing in specialized manufacturing equipment, scaling up to commercial-scale production, and developing a distribution network. Production of mechanical devices often requires the creation of special tools, dies, or molds as well as assembly of parts.

"Scaling up" chemical processes from small quantities produced in a laboratory (sometimes referred to as the bench) to the larger quantities of commercial-scale (or batch) production can be complex. It may require a

study of the chemical kinetics of the process, that is, the rate at which a chemical reaction occurs and the details of that reaction. A reaction may be easily controlled when done with small amounts of the chemical but behave differently when done on a larger scale. It may, for example, generate large amounts of heat, explode, or expose workers to unsafe amounts of toxic chemicals. Governments may also require testing of pharmaceutical and agricultural chemical products and submission of test data before the product can be marketed. Such testing serves important social policies but is expensive and raises the price of taking an invention to market.

Some inventors are driven by altruistic purposes – the desire to find cures for diseases or help humanity in some other way – rather than a desire to make money from their work. However, they may still need investors to support the development of their inventions, and potential investors have a great interest in the likely financial prospects of the venture. Without the ability to obtain investment in the development of new inventions, a good idea may remain exactly that – an idea, not a product.

Businesses are reluctant to invest in new products if they are not able to obtain some degree of exclusivity. Experience with inventions offered for license on a nonexclusive basis shows that they are rarely licensed. Inventions that are market-ready when offered for license are an exception to this experience. However, industry virtually never makes the investment to bring the results of basic research to the market without a guarantee of exclusive rights.

When businesses are not likely to be able to obtain exclusivity over a new invention in order to recover their investment and realize a reasonable profit, they sometimes become very creative about marketing in ways that allow them to maintain the inventions as undisclosed information. Processes are easiest to keep secret. Chemical formulae are also relatively easy to keep secret. However, even mechanical devices can be protected against disclosure in some cases. When it is not possible to obtain sufficient protection for inventors and developers to recover their investment, the likely result is not that the invention will be given to the public freely, but that the public will never receive the benefit of the invention.

Most discussion of the policy implications of exclusive rights concerns patents for inventions, but there are also policy arguments concerning other forms of intellectual property. The repression of unfair competition serves

the policy of protecting merchants and consumers. Imitation of marks not only deprives the proprietor of the benefits of goodwill and reputation acquired through the owner's efforts but also deceives the public. Copying of marks is against public policy, whether it involves mislabeling of essential goods or the imitation of luxury items. Even if the consumer is not deceived and knowingly purchases a copied item, proceeds from such sales perpetuate organized criminal activity.

A discussion of intellectual property policy would be incomplete if it failed to acknowledge arguments against strong protection. One line of criticism is directed against intellectual property as private property and its role in the generation of wealth. Under a Communist regime, in which private ownership of property was disfavored, the former Soviet Union experimented with an alternative system of rewards called *inventor's certificates,* under which the government rewarded innovators without creating *personal property rights* in an invention. Ironically, this system endorsed the economic principle of providing an incentive for the development of new creations, but without the economic engine of a market economy, the system failed to promote development at the same rate it occurred in countries that relied on a market economy to provide rewards.

Most nations of the world did not adopt that approach, and Russia and the other countries of the former Soviet Union are now struggling to build a market economy and develop a strong intellectual property system that will promote their economic development.

The other major theme of debate concerns the role of intellectual property in the distribution of wealth between rich and poor nations. While all sides agree that a strong intellectual property system promotes domestic innovation, some opponents of strong intellectual property protection argue that in developing countries, this advantage is outweighed by the value of knowledge available from other sources, such as developed countries. In an unequal world, critics argue, the adoption of uniform norms of protection would perpetuate the uneven distribution of information resources.[21]

In a static environment, sealed against the flow of information, such an argument might have merit. However, information is transmitted across national borders by a variety of methods. One important means of

[21] Cortes Costa, Mauricio Eduardo, "A View From Brazil," Walker and Bloomfield, *op. cit.* at 61-61.

transferring technology is through patent disclosures. Patents provide a wealth of technical information, much of which is not available elsewhere.[22]

Another means is through foreign direct investment: establishing sales outlets, manufacturing facilities, and even research and development facilities. These create jobs, add to the knowledge base, and spur the development of other businesses. Foreign direct investment is an extremely significant factor since most technology is owned by the private sector. As pointed out above, investment decisions depend heavily on the level of protection of intellectual property accorded in each country.

One special arrangement for the transfer of knowledge is the franchise agreement. A *franchise* is a complex license agreement that authorizes the *franchisee* to use a mark and other intellectual property specified in the agreement in accordance with certain conditions. Franchises are an effective means of transferring technology, using intellectual property law for its legal framework. Two other advantages of a franchise are that it provides the franchisee with a total business system and allows the franchisee to take part in an enterprise with an established reputation.

Rather than perpetuating inequities in knowledge, the intellectual property system creates a framework that allows developing countries to share in the wealth of the developed world.

International cooperation

Governments have expressed concern about intellectual property protection on an international scale since at least 1883, when the Paris Convention for the Protection of Industrial Property was adopted. In succeeding years, a number of treaties and other international agreements were adopted to address issues of concern and simplify the process of obtaining intellectual property protection in foreign countries. For the most part, however, these treaties had relatively little effect on the national laws of the nations of the world and did not contain effective provisions to address noncompliance by member states.

[22] Studies of U.S. patents have found that approximately 80% contain some technical information that is not published elsewhere. Patent Depository Library Program, http://www.uspto.gov/web/offices/ac/ido/ptdl/patreaso.htm.

Beginning in the 1980s, a new approach was taken when intellectual property was considered in the context of trade. In trade terms, the failure to provide adequate and effective intellectual property protection was considered a non-tariff trade barrier, i.e., a means to exclude goods or make them more costly other than by imposing customs duties. Non-tariff trade barriers are prohibited under the General Agreement on Tariffs and Trade (GATT), which offered an attractive forum for raising intellectual property issues since it has specific dispute resolution provisions. In this context, negotiations took place that led to the development of the World Trade Organization (WTO).

The Agreement Establishing the World Trade Organization contains a number of annexes that address specific topics of importance to the 145 Members (as of February 5, 2003) that have joined the WTO. Among these is the TRIPS Agreement – the Agreement on Trade-Related Aspects of Intellectual Property Rights – which contains a comprehensive set of intellectual property standards to which WTO Members agree to conform their national laws.

Intellectual Property Definitions

Intellectual property is generally divided into two main branches: **industrial property** and **copyright**. Industrial property comprises inventions, marks, and the repression of unfair competition. Copyright relates to works of authorship.

An **invention** is a new development in any field of endeavor. An invention is typically a new device, process, composition of matter, or an improvement on any of these. A **patent** is a government grant of exclusive rights in the invention for a limited period of time, in exchange for which the inventor must disclose the invention to the public. To be patentable, an invention must be new, useful (or industrially applicable), and not an obvious improvement over previously known inventions.

An **industrial design** is any composition of lines or colors, or any three-dimensional form that gives a special appearance to and can serve as a pattern for a product of industry or handicraft. An industrial design is generally protected if it is new or original and not dictated solely by technical or functional features.

A **mark** is any sign or combination of signs capable of distinguishing the goods or services of one undertaking (i.e., person or business) from those of another. The terms "mark" and "trademark" include service marks.

A related area is **appellations of origin**, which identify a good as originating in the territory of a particular country, or a region or locality in that territory where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin.

Plant variety protection (also referred to as plant breeders' rights) gives the developer of a new variety of plant the exclusive right to produce, offer for sale, or market the propagating material of the variety. Plant varieties are generally protected if they are distinct, uniform, stable, have an appropriate denomination (name), and are commercially novel.

Intellectual Property Definitions

Intangible property such as business goodwill, trade secrets, and know-how are protected under the laws prohibiting unfair competition. **Unfair competition** includes any act contrary to honest commercial practices**.** Acts of unfair competition include but are not limited to breach of contract, misappropriation of trade secrets, and false or misleading representations as to the origin or quality of goods or services. The laws against unfair competition are sometimes included in **commercial (companies) law** and are sometimes included in **consumer protection law**. **Restrictive business practices (monopolies)** related to licensing may also be acts of unfair competition.

Copyright refers to protection for works of authorship, including computer programs. Copyright protects any original work of authorship against copying: reproducing copies, preparing derivative works, distributing copies, selling copies, or performing or displaying the work publicly. The related area of **neighboring rights** protects performers, producers of phonograms (sound recordings) and broadcasting organizations.

Integrated circuit layout-designs (or topographies) used in semiconductor chips are protected either under copyright or a *sui generis* law against copying the mask used in the production of the semiconductor chips.

TRADE SECRETS AND UNDISCLOSED INFORMATION

The most basic way to protect any new development or valuable information is by keeping it a secret. A *trade secret* or *undisclosed information* is information that is legally protected against acquisition, disclosure or use, without the consent of the owner, in a manner contrary to honest commercial practices. The protection of undisclosed information is rooted in unfair competition law, which prohibits deceptive or unfair practices between merchants or between a merchant and consumer. The underlying policy is to prohibit acts that are contrary to honest commercial practices.

Some Inventions Successfully Maintained As Secrets for Many Years

Obstetrical forceps (most of a century)
Formula for Coca Cola (more than a century)
Mummification process (lost to science)

The ability to protect undisclosed information offers an important business advantage. Businesses devote considerable resources to identifying potential customers and maintaining customer satisfaction; improving and refining their products or methods of production to improve quality or reduce cost, or perhaps even developing new products or methods of production; and exploring business opportunities. Disclosure of such information allows others who have not made the same investment to receive the same benefit, to the relative competitive disadvantage of the one that developed it. Businesses therefore find it useful to maintain such information in secrecy in order to protect their investment and maintain the competitive advantage that it provides.

A trade secret does not provide an exclusive right. Any other person who independently discovers the same information as the undisclosed information, or who learns that information through legitimate means, is entitled to exploit that information without permission of the owner of the undisclosed information. If two people independently discover (or develop) information that is not generally known in the circles of trade that would customarily use that information, each may own a trade secret right in the information, and may choose to keep it a secret or to disclose it to others without an obligation of confidentiality.

If the subject of undisclosed information is an invention, reliance on secrecy carries the risk that another person will independently make the

same invention. However, a trade secret offers the advantage that it has an indefinite term, i.e., the right exists so long as the information is not generally known within the circles of trade in which it is used. Trade secrecy is the main alternative for inventions that do not meet statutory requirements for patentability, since no formalities are required and there is no requirement of novelty, inventive step or nonobviousness, utility, subject matter or even inventorship.

The proprietor of undisclosed information has a property right in the information and may convey it to others. Once information becomes generally known or available without a requirement of confidentiality, it loses its character as undisclosed information and the value it had because it was secret.

Because such a loss is irremediable (i.e., it is not possible to make such information secret again), great care should be exercised in handling undisclosed information in order to prevent unauthorized disclosure. This obligation should be exercised not only by the proprietor and by persons who are granted access to the information in the course of business but also by lawyers and courts who may be called upon to decide matters related to undisclosed information. Unauthorized acquisition, disclosure or use of undisclosed information is referred to as *misappropriation*.

What Types of Information Can Be Protected As Undisclosed Information?

- Scientific and technical information, including patentable or unpatentable inventions, technical or test data, or know-how
- Business and commercial information such as customer lists or sources of supply, business systems or methods, statistical information or models, or business opportunities

Provided that each of the three TRIPS conditions for protection is met.

TRIPS standards

TRIPS Article 39 obligates WTO Members to protect *undisclosed information* by providing legal means to permit legal or natural persons from preventing information lawfully within their control from being disclosed to, acquired by, or used by others without their consent in a manner contrary to honest commercial practices, so long as such information

- is secret,
- has commercial value because it is secret, and has been subject to reasonable steps, under the circumstances, by the person lawfully in control of the information to keep it secret.

Under the TRIPS standard, virtually any type of information could be protected as a trade secret, subject to this three-prong test. Thus, in determining whether information can be protected as undisclosed information, the appropriate inquiry is not what types of information can be protected but whether these three conditions are met.

Secrecy

For purposes of TRIPS, *secret* means that the information as a body, or in the precise configuration and assembly of its components, is not generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question. This does not require that each individual item of information be secret. It is sufficient that the body of information as a whole is not generally known.

For example, a customer list may qualify as undisclosed information if that list is maintained in secrecy even though the names of individual customers may be known or discoverable by other means, such as canvassing potential customers and inquiring as to whether they are customers of the enterprise that maintains the list. Similarly, under the TRIPS standard, the Coca-Cola formula would qualify as undisclosed information to be protected because, while it is possible to determine the constituent parts with a great deal of accuracy through chemical analysis, the manner in which the various elements are combined, and the precise chemical details of the resulting product, are not generally known by other drink manufacturers.

In both examples, the list or formula would be protected if it has also been the subject of steps to keep it secret and has commercial value because it is secret.

Commercial value because of secrecy

TRIPS requires WTO Members to protect undisclosed information that has commercial value because it is secret. In most cases, information that meets the other two requirements will also have commercial value because it is secret, but the fact that information is secret does not guarantee that it has commercial value. Since no standard is provided by which to make this determination, ordinary commercial principles should apply.

In general, the principal *commercial* value of undisclosed information is the competitive advantage that it provides. Undisclosed business or technical information may contribute to the effectiveness or efficiency of an enterprise, promote quality, or otherwise contribute to the enterprise's profitability. The secrecy of such information enhances its value because it allows the enterprise that controls the undisclosed information, but not its competitors, to realize whatever advantages the undisclosed information confers. If an enterprise's customer lists or technical know-how were available to any interested party, that information might offer the same practical benefits but would not confer the same competitive advantage.

There may be situations in which it is claimed that certain information should be protected as a trade secret or undisclosed information but where there is no commercial advantage to be gained from according such protection. Although there is no requirement of industrial applicability or utility as there is for patents, it is difficult to imagine what commercial value would exist for a product with no known application, or a process for producing such a product. WTO Members may accord protection to such undisclosed information or may choose not to do so, at their option.

Although the TRIPS Agreement does not require that information be protected unless it has commercial value because of its secrecy, TRIPS sets no minimum value as a requirement for protection, there is no basis for requiring a high commercial value as a condition for protecting undisclosed information. Even undisclosed information of small commercial value is entitled to legal protection. If the commercial value of undisclosed information is slight, it may affect the relief granted on a claim of misappropriation since damages would be smaller and in some cases, a

plaintiff may not be able to establish the likely degree of harm to warrant injunctive relief.

Reasonable steps to keep the information secret

Obviously, the best way to maintain the secrecy of information is to share it with no one. However, businesses need to share undisclosed information with employees or other persons from time to time. Employees may need to know certain technical details of a secret process or item of equipment, for example, in order to use the process or operate the equipment for the benefit of the business. Sales, technical, or delivery personnel would necessarily have access to a customer list, or portions of it, in order to make sales calls, perform repairs, or ship products.

The prudent employer will inform employees in writing which items of information are considered confidential and the company's policy that such information is not to be disclosed except under specified conditions. The prudent employer will also require the employee's written agreement to abide by that policy as a condition of the employment contract.

A somewhat different situation arises when the persons to receive such information are not employed by the enterprise that owns the undisclosed information. This may occur when the company contracts with attorneys, accountants, engineers or other technical staff, or even cleaning staff to perform work that will bring such persons into contact with the undisclosed information. An attorney may be asked to evaluate an invention for patentability or prepare a patent application for it. An accountant would have access to books that would disclose customers, sources of supply, financial data of the company and possibly business plans or prospective business deals. Scientists, engineers, draftspersons, and technicians may be engaged to create technical drawings, conduct repairs, or make improvements on equipment or processes.

In such cases, it is prudent to protect valuable information. For professionals with an obligation to protect the confidences of clients, it may be adequate to notify them that certain information is secret. In other cases, persons with access to the information should be required to sign a nondisclosure agreement. Of course, wherever possible, it is preferable to make arrangements that prevent such information from being available to, or observable by, other persons.

Other measures to protect the secrecy of undisclosed information may also be required. Confidential documents should be stored in secure circumstances, such as a safe or locked file cabinet. Equipment and processes embodying confidential information should be located behind walls where they are not observable by the public, and access to those areas should be limited to persons with a reason for access. It may be reasonable to post guards around sensitive information. Notices should be attached to documents to alert anyone who receives them that the information contained in the documents is confidential. It is also prudent to maintain a log of persons having access to confidential information and the precise information to which they have access.

The extent to which measures should be implemented to protect depends on the nature of the information, its value, the expected efficacy of legal remedies, the perceived risk of disclosure, and other factual circumstances. A small workshop with a secret new tool may be able to keep the tool in a drawer, while a factory with a secret production method may need more elaborate (and certainly larger) safeguards.

Clearly, it is prudent to employ more safeguards to protect more valuable information, but it is not reasonable to expect a business to employ every conceivable safeguard in every case. Businesses should weigh the cost of safeguards against the value of the information being protected and the perceived risk of misappropriation. This balancing should be considered in determining the reasonableness of the measures taken.

No single approach is suitable for all cases. Determining whether the measures that have been taken to protect the secrecy of information are reasonable under the circumstances must be done on a case-by-case basis, with particular reference to the facts. Legal advisors can help clients by suggesting creative and cost-effective ways to protect their undisclosed information. One inexpensive step is to post notices in the workplace reminding employees of their obligations regarding information under their control. In some cases, undisclosed information might be compartmentalized, with no person having control over the entire set of information. This may be useful when the secret information contains a number of separate steps that do not need to be conducted together, as with an industrial process. In some cases, it may even be possible to conceal important elements of undisclosed information from most employees, for example, by labeling containers of ingredients in a non-misleading manner that does not disclose the actual contents (e.g., Container A, Box B).

Misappropriation of undisclosed information

TRIPS Article 39 requires that legal or natural persons must be able to prevent undisclosed information lawfully within their control from being disclosed to, acquired by, or used by others without their consent in a manner contrary to honest commercial practices. Thus, misappropriation consists not only in unauthorized disclosure of undisclosed information but also its unauthorized acquisition or use. When the proprietor of the undisclosed information has taken reasonable steps to safeguard that information against disclosure, any person who knows, or has reason to know, that the information is secret should act in accordance with that knowledge.

Although it is legitimate to discover undisclosed information independently, it is not legitimate to discover it through dishonest means. TRIPS Article 39 specifies that the term "a manner contrary to honest commercial practices" must at least mean practices such as breach of contract, breach of confidence and inducement to breach, and includes the acquisition of undisclosed information by third parties who knew, or were grossly negligent in failing to know, that such practices were involved in the acquisition. Thus, consistent with the TRIPS standard, a person who is contractually bound not to disclose undisclosed information would be liable for breach of that agreement by using it or disclosing it to others. Likewise, a person who obtained the information under a condition of confidence or trust would be liable for breach of that confidence. Any person with a fiduciary duty, such as a lawyer or member of a board of directors, would be liable for unauthorized disclosure or use on that theory. Inducement to breach could occur, *inter alia*, by offering something of value to a person who has access to undisclosed information under a contractual relationship or relationship of trust in exchange for disclosure.

While it is perhaps obvious that a claim of misappropriation could be made against a person who discloses secret information without authority and thereby breaches a contract or confidence, it may be less obvious that a third party who is not so bound could also be guilty of misappropriation. This would occur when a person with actual knowledge of a prior breach nevertheless receives the information. Such a person may also be liable if the information was received under conditions that should have alerted him or her of the need to find out whether the information was legitimately obtained. The TRIPS standard in such cases is gross negligence, but the

existence of such a requirement should alert businesses to the need for a reasonable investigation into the source of any proffered information.

Honest and dishonest means

There is no definitive list of what constitutes honest or dishonest means. Two examples of honest means of acquiring information are independent discovery and reverse engineering. Inspection of an item that has been legitimately acquired, disassembling it or subjecting it to testing, are common elements of "reverse engineering" and are considered legitimate means of learning secret information. It is also legitimate to learn or develop the information by independent means, such as experimentation or research.

Dishonest means include criminal activities such as breaking into a business; breach of contract or other obligation of confidentiality; inducement to breach of contract, such as luring away employees who have access to a competitor's trade secrets; and industrial espionage through wiretapping, eavesdropping, aerial photography of limited access areas, computer "hacking" or similar means.

Thus, the proprietor of a secret list of potential clients has no right to prevent a competitor from independently compiling a similar list but may prevent the competitor from obtaining a copy of the proprietor's own list. A person who purchases an item made according to a secret formula is free to subject that item to chemical analysis to learn how to reproduce it but may not seek information from the employees of the company that produces the item for the same purpose. A person may use any information that can be obtained by ordinary observation – but attempts to circumvent a company's security measures to learn the same information are contrary to honest business practices.

Some care should be used in deciding whether an obligation of confidentiality exists. An obligation not to acquire, use or disclose secret information may be created by a written agreement, implied from the circumstances, or created by action of law. An implied obligation occurs, for example, when the person providing information informs the recipient that the information is secret or conveys other information from which that conclusion can be inferred. An example of an obligation created by action of law is a statutory provision prohibiting government employees from divulging certain information acquired in the course of their employment.

Special provisions for test data

TRIPS Article 39.3 requires WTO Members to protect test or other data submitted to government offices as a condition of securing market approval for pharmaceutical or agricultural chemical products. Governments are required to protect such data against unfair commercial use and against disclosure except where the disclosure is necessary to protect the public and steps are taken to ensure that the data are protected against unfair commercial use.

The protection of test data represents a compromise among a number of competing policy concerns. Businesses have an interest in protecting valuable information against disclosure, and governments have an interest in learning about the product to protect public health and the environment. Consequently, pharmaceutical and agricultural chemicals are subject to much more stringent regulatory requirements than most industrial products. This is an important issue since the cost of testing is often on the order of ten times the cost of developing the new chemical product itself. The requirements of TRIPS Article 39.3 are discussed in greater detail below in chapters on Special Requirements for Pharmaceutical and Agricultural Chemical Products, and International Standards of Intellectual Property Protection.

INVENTIONS AND SIMILAR DEVELOPMENTS

An *invention* is a new development in any field of endeavor. An invention is typically a new device, process, composition of matter, or an improvement on any of these. Examples of inventions may include a new machine, a new chemical compound, or a new chemical process. Inventions may also include living matter, such as a new microorganism or variety of plant or animal.

Some Egyptian Inventions

Loom
Cosmetics
Black ink
Sundial
Leather bookbindings
– *A Timeline of Inventions*, http://hamp.hampshire.edu/~invent/history/ADtimeline.html

Governments recognize a property interest in inventions and offer methods by which these interests may be protected. The principal means for protecting an invention is through a patent. However, an inventor may choose to retain the invention as a secret.

Although an invention is more than just an idea, the invention may exist in its complete form solely in the mind of the inventor. The inventor has no obligation to share his or her invention with the public. An inventor is free to disclose or exploit the invention, or to refrain from doing so. So long as the invention is not realized in a tangible form or communicated to others, there is no practical way for others to obtain disclosure of an invention except through cooperation of the inventor. Consequently, governments offer legal protection for inventions in order to encourage inventors to disclose and develop their inventions so that the public can share in their benefits. In some cases, it may be possible to exploit an invention without disclosing it in a way that would allow it to be copied successfully by others.

In other cases, normal exploitation of an invention discloses its essential features to the public. These features may be obvious from inspection, or some experimentation may be required. Inspection and experimentation to determine how an invention works are legitimate means of learning how a product is made or operates. Any person who learns about the invention in this way is free to copy it unless the invention is protected by a patent or other form of protection that offers exclusive rights.

Choosing a method of protection: patents vs. trade secrets

The two basic means for protecting an invention, maintaining it as a trade secret or applying for a patent each offer some advantages and disadvantages to the owner.

A trade secret offers the advantage that it can be maintained indefinitely, provided the subject matter remains undisclosed or undiscovered by legitimate means. A patent, by contrast, has a limited term, generally 20 years from the date of filing, after which time anyone may copy the invention without the permission of the inventor. A trade secret also has the advantage that it can be maintained for inventions that do not meet the requirements of patentability. That is, a trade secret can be maintained even though the proprietor is not the inventor, or the invention is not new or does not contain an inventive step.

How does the public benefit from the patent system?

Consider the obstetrical forceps. The obstetrical forceps was maintained as a trade secret during the 17th Century by a family of physicians named Chamberlen, who were noted for being able to handle difficult births. The secret was passed from one generation to the next within the family and did not become generally known until 1727 – almost a century. *See,* Lyons, Albert S., and Petrucelli, R. Joseph II, *Medicine* 456, 481 (New York, 1978). If the invention had been protected by a patent instead of being kept as a trade secret, other physicians would have been able to use the new technology to reduce maternal and neonatal mortality many years sooner. Which would have been better for the public?

The chief advantage of a patent lies in the exclusivity it offers, that is, it protects against copying by those who discover how to make or use the invention and even against those who subsequently make the same invention independently. The patent owner is free to exploit the invention without a need to assure that its details cannot be learned. Trade secrets do not offer this protection. Unlike the proprietor of trade secrets, a patent owner does not need to take steps to keep the invention a secret or risk losing rights through inadvertent disclosure.

In some circumstances, inventors may prefer to maintain an invention as a trade secret. However, it is more beneficial to the public when an invention is disclosed in a patent.

What constitutes making an invention?

An invention is made when the inventive idea, with all its essential attributes present, is so clearly defined in the mind of the inventor that it is capable of being converted into reality and reduced to practice by the inventor or by one who has ordinary skill in the relevant area of technology.[23]

The method by which an invention is made is not legally significant. An invention may be made as a result of a sudden inspiration or after painstaking experimentation. An invention may even be discovered by accident, provided that the inventor recognizes the invention. If the inventor fails to recognize an invention, the requisite conception has not occurred.

Even though making an invention is primarily a mental act, merely having an idea for a new product is *not* making an invention. An abstract idea, apart from the means for carrying it into effect, is not an invention.[24] Many people are able to recognize a problem and conceive of an avenue for exploring a possible solution, but not every person is able to conceive of the means for carrying out the invention. The making of an invention requires a complete conception of all the essential elements necessary to carry out the invention. *Compare, e.g.,* the *idea* of a medicine to prevent poliomyelitis, with the *invention* of a vaccine to prevent poliomyelitis; the *idea* of using water to generate electricity, with the invention of a hydroelectric dam and turbine system. If an invention has been made, the inventor should be able to describe all the essential elements of that invention.

Determining whether an invention has been made

Being able to determine whether an invention has been made is important for several reasons. A primary reason is to determine whether an invention

[23] 1 *Lipscomb's Walker on Patents 3d* 217 (1984), *citing* Technitrol, Inc. *v.* United States, 194 Ct Cl 596, 440 F2d 1362, 169 USPQ 732 (1971).
[24] *Id*. at 169.

exists for purposes of filing a patent application. Obviously, if the subject matter of the application is not an invention, it cannot be a patentable invention. A second reason relates to determining when an invention was made. When more than one person applies for a patent on the same invention (not an uncommon occurrence), most countries award the patent to the applicant who filed first. In some countries, notably the United States, the inventor who is entitled to a patent may be the person who first made the invention, not necessarily the one who first applied for a patent. Finally, it is important to know whether an invention has been made in order to establish the identity of the inventor or inventors.

Although it is not necessary to reduce an invention to practice in order to complete it, reduction to practice demonstrates conclusively that an invention has been made. Reduction to practice occurs when an invention with all its elements is embodied in a tangible form. A process is reduced to practice when it is successfully performed. A machine is reduced to practice when it is assembled, adjusted and used. An article of manufacture is reduced to practice when it is successfully manufactured. A composition of matter is reduced to practice when it is successfully composed.[25]

Alternatively, it may be demonstrated that an invention has been made if the invention is fully described, with all its essential elements, in a manner that would enable a person of ordinary skill in the relevant field of technology to make and use the invention. Drawings and descriptions are not sufficient to accomplish a reduction to practice. However, filing a patent application with an enabling description of the invention is a constructive reduction to practice.

Determining inventorship

An *inventor* is a person who conceives of a completed invention. If two or more persons jointly contribute to making an invention, they are co-inventors or joint inventors. Whether a person is an inventor (or co-inventor) is a legal determination based on a factual inquiry. The first step in determining whether a person is a joint inventor is to identify what that person contributed to making the invention and whether that contribution is of an inventive nature.

[25] *Id*. at 232, *citing* Corona Cord Tire Co. *v*. Dovan Chemical Corp., 276 US 358, 72 L.Ed. 610, 48 S Ct 380 (1928)

Joint inventors need not have worked directly with each other so long as each contributed to the subject matter of the invention and there was some cooperation among them. A person does not become an inventor by virtue of position or a monetary contribution, and it is highly inappropriate to list a person as an inventor as a courtesy or honor. Likewise, a person who assists the inventor does not become a joint inventor, even if the assistance is of a technical nature, if that person is merely carrying out the inventor's instructions. However, a person who is engaged to determine one or more essential features of an invention may become an inventor.

An inventor often requires assistance in carrying out the invention. This assistance may come from a number of sources. For example, the inventor may need the assistance of draftspersons to make detailed drawings to assist in building the invention, or machinists or others to help build the invention. If such persons merely carry out the instructions of the inventor, their contribution is not of an inventive nature, and they are not considered co-inventors by virtue of that contribution. This is true even if their contribution includes technical matters that are within the ordinary level of skill in that field of technology.

Sometimes, however, such persons make suggestions that are incorporated in the invention and are part of its essential elements. In those cases, they are co-inventors, regardless of whether they were employed for their technical skills.

Inventors may obtain factual information from a variety of sources. They may, for example, consult reference works. Instead of consulting a reference work, an inventor may obtain the same information from a person with a high degree of technical knowledge – a scientist or engineer, for example. Providing such information does not make the person who was consulted a joint inventor.

On the other hand, a person may obtain the assistance of such a knowledgeable person to determine how to bring about an effect. In this case, the knowledgeable person is an inventor. In these cases, a final issue is whether the person who sought assistance is also an inventor. The answer turns on whether each person made an inventive contribution to the essential features of the invention.

In some cases, making an invention requires a degree of experimentation or testing to determine one or more of its essential features. In this situation, a

team of persons may be engaged to carry out part of that testing and experimentation. Is the inventor the person who commissioned the experimental work or the persons who carried it out, or both? The answer depends on who made contributions to the essential features of the invention. If the person who commissioned the work requested knowledgeable people to find a solution to a problem, that person may well *own the invention* but *not* be an *inventor*. If the person who commissioned the work also directed the work and designed the experiments, which were carried out in order to report back specified facts, then the person who commissioned the work is the inventor and the scientists and technicians who carried out the experiments are not co-inventors. If the work was done collaboratively, with contributions to the essential features of the invention both from the one who commissioned the work and those who participated in laboratory trials or development, then all may be co-inventors.

Whether a feature is an essential feature of the invention depends on the facts. If a feature is required in order to cause the invention to operate as intended, it is an essential feature. If it is a mere technical correction that would be known by a person of ordinary skill in the relevant field of technology, it is probably not an essential feature.

In deciding whether a person may be a co-inventor, it is useful to consider what contribution that person made and whether the invention could be described adequately if the feature in question were omitted. If omitting that contribution would make the invention incomplete or inoperable, the contribution is essential. If the contribution is essential to operability but the invention can be understood without mentioning the contribution because a person of ordinary skill would know to take the step in question, then the contribution is probably not an essential feature of the invention but rather part of the state of the art, and it is most likely that the person in question was not a co-inventor.

If two or more persons have each contributed to making the invention but there has been no cooperation among them, they may be independent inventors, *i.e.*, one person, or a group of persons may have made the invention independently of the other person or group of persons.

It is relatively common for two or more persons, working independently of each other, to make the same invention. One may be entitled to obtain a patent while the other is not.

A person who makes an invention is an *inventor*, even if the invention has been made before by another person. The fact that someone else has already made a particular invention does not diminish a subsequent inventor's creative contribution or right to be known as a true inventor. Neither does the fact that the invention may not be patentable, or may not be patentable to that person.

However, a person is *not* an inventor if that person copied or derived the invention from someone else, even if the copying were done with the permission of the true inventor, with or without remuneration. In such cases, the person *may* be entitled to apply for a patent if there is a legal basis for such claim, such as an employment contract or assignment, but such a person is *not* entitled to be named as the inventor. A person is likewise *not* an inventor who copies an invention even if some experimentation is required to duplicate what has been previously observed.

Statutory means of protection of inventions

Inventions may be protected in a number of different ways, depending on their subject matter and statutory requirements. The rights provided by each of these forms of protection are different, as are the conditions for obtaining protection. Some of these forms of protection, and the conditions under which they are applicable, are described below.

PATENTS

A *patent* is a government grant of exclusive rights in the invention for a limited period of time, in exchange for which the inventor must disclose the invention to the public. At the end of the patent term, any person is free to use the invention. The disclosure required by the patent system enables the public to learn how to exploit the invention, which can be done freely after the end of the patent term.

A patent can only be obtained by or through a person who is the true inventor of the invention described and claimed in the patent application. That is, a person cannot apply for a patent on an invention that the person named in the application did not actually invent.[26] Or to put it differently, a person who derives an invention from another person, or copies the invention from another person, is not entitled to obtain a patent on the invention even if he or she is the first to file a patent application. The inventor is entitled to be named as such in the patent application, and care should be taken not to include as inventors persons who did not actually contribute to the making of the invention. Such persons may properly be named as, for example, an assignee, or their contributions may be referenced in some other way,[27] but such persons should not be named as inventors. In some countries, wrongly naming inventors jeopardizes the validity of the patent.

Although a patent can only be obtained in the name of a person who is a true inventor, the fact that a person is a true inventor may not entitle that person to obtain a patent. The person must also be entitled to obtain a patent on other grounds. A person may be a true inventor, for example, but may not be a first inventor or the inventor who is first to apply for the patent.

A patent allows the inventor an opportunity to recover his or her investment in the invention, make a profit, and establish a market position during the

[26] A patent application must name the true inventor. Some countries require that the application for a patent must be brought in the name of the true inventor, even if another party owns rights to the invention. In other countries, the patent application may be filed in the name of the owner, even if the owner is not the inventor, provided that the application names the true inventor and the owner claims rights on the basis of some legal relationship with that person.

[27] The ability to acknowledge contributions such as sponsorship, funding, or editing is more limited in a patent than in scholarly article.

patent term. The inventor is not guaranteed a particular return. The benefit the inventor will derive from a patent will depend on such factors as public demand, marketing skill, the advantages of the patented invention over other technology, the cost of the invention or of retooling, and many other factors.

Unlike a monopoly, a patent may only be granted for a *new* invention. It therefore takes nothing from the public that it has ever had before, and consumers remain able to use all products that have previously been available. The principle advantage of a patent over a trade secret is that it offers a legal means for an inventor to prevent others from exploiting the invention, even if they have independently made the invention. Examples of patented inventions include the telephone, light bulb, cotton gin, correction fluid for typing, the process of xerography, a strain of bacteria that eat petroleum, the recipe for Kentucky Fried Chicken, a test for HIV, the statue of liberty (subject of a design patent), and the space shuttle.

Patentable subject matter

TRIPS Article 27.1 prohibits discrimination in issuing patents based on the place in which the invention is made, the field of technology to which it relates, or whether products are imported or locally produced. Limited exclusions from patentability are permitted where it is necessary to protect *ordre public* or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment.

WTO Members are also permitted but not required to exclude diagnostic, therapeutic and surgical methods for the treatment of humans or animals, plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. WTO Members must protect plant varieties either by patents or by an effective *sui generis* system or by a combination of such systems.

Exclusions from patentability

A WTO-member nation is permitted to have in its patent law limited exclusions from patentability where these are necessary to protect *ordre public* or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment. *Ordre public* is a French legal concept that refers to compelling issues of public policy necessary for

a well-ordered society. The concept is not limited to particular subjects but should be understood as referring to principles of such importance that the government cannot depart from them.

WTO members may also exclude from patentability diagnostic, therapeutic and surgical methods for the treatment of humans or animals; and plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, under TRIPS Article 27, WTO members must protect plant varieties either by patents or by an effective *sui generis* system or by a combination of such systems.

It should be noted that nations are not *required* to have these exclusions in their patent laws. The exclusion under TRIPS Article 27.3 (b), for example, is not advisable in a nation with a strong agricultural sector, since it would remove the benefits of the patent system from areas in which the country has a strong base.

Requirements for patentability

Although a patent is the usual means for protecting an invention, not all inventions are patentable. The conditions for patentability are determined by national law. However, these conditions are subject to certain international norms. Under TRIPS Article 27.1, patents must be available for inventions in *all* fields of technology, provided that the invention is

- new;
- involves an inventive step (or is nonobvious); and
- industrially applicable (or useful).

If an invention meets these three requirements – *novelty* (the invention is *new*), *utility* (the invention is *useful* or *industrially applicable*), and *nonobviousness* or *inventive step* – it meets substantive requirements for patentability.

An invention has an *inventive step* if it is not merely an obvious improvement over previously known inventions. An invention is *useful* or *industrially applicable* if it has a use or is capable of industrial application.

Under TRIPS Article 27.1, no discrimination is permitted based on the place in which the invention is made, the field of technology to which it relates, or whether products are imported or locally produced.

Person skilled in the art

A number of features of patent law are applied with reference to a *person who is skilled in the art*. This phrase is a term of art and refers to the ordinary level of skill of a person who is familiar with the relevant area of technology.

For an invention concerning bricklaying, the person skilled in the art may be a brick mason. If the invention concerned a new material that could be substituted for bricks or mortar, the person skilled in the art might be a materials scientist. If the invention concerned a new way of assembling the bricks and mortar, the person skilled in the art might be an architect, builder, or civil engineer. If the invention concerned a new recipe to be used in microwave ovens, the person of ordinary skill in the art would be a person who is familiar with microwave cooking or, at the point where the microwave oven itself was so new that there were essentially no persons with such experience, then the person of ordinary skill in the art might be a person who is familiar with cooking, such as a chef or home economist.

Note that this level of skill is not necessarily that of an expert or a person with particular talent or genius. Rather it is the level of skill possessed by an ordinary person who is, however, fully conversant with the field. This person of ordinary skill is not the same, however, as a real person since, as a legal matter, it is assumed that the hypothetical *person skilled in the art* has actual knowledge of every patent or publication that describes relevant technology, a standard that clearly does not prevail in the real world. The skill level is thus interpreted not in terms of knowledge, which is also imputed to the inventor, but in terms of judgment, that is, whether the *person skilled in the art* would find it obvious to build on the prior art in a particular way.

Acquiring patent rights

Patent rights are acquired by filing a patent application with the Patent Office in any country where patent protection is desired. Filing requirements are specified by national law. An applicant ordinarily must provide a technical description of the invention and claim the subject matter

the applicant believes is entitled to the protection of a patent. The application must disclose the invention in a manner sufficiently clear and complete that it can be carried out by a person skilled in the art. The law may also require the applicant to indicate the best mode for carrying out the invention known to the inventor at the filing date or, where priority is claimed, at the priority date of the application.[28]

Once the application is filed, it may be examined to determine whether the invention meets substantive requirements for patentability, *i.e.*, novelty, inventive step, and industrial applicability. This is determined by comparing the claimed invention with the *prior art*, that is, the body of knowledge that is legally significant for purposes of determining whether the invention is new or has an inventive step. The Patent Office will perform a search, compare the invention as described in the application with what is found in the prior art, and inform the applicant of any reasons that it may not be appropriate to issue a patent. The applicant then has an opportunity to provide a response that addresses those reasons if possible.

Description

A patent application must describe the invention in such full, complete and clear terms as will enable a person of ordinary skill in the relevant technology to carry out the invention. Such a description must be made at the time the application is filed.

The precise elements to be included vary from place to place, and the description must be prepared according to requirements determined by the law under which the application is filed.[29] There is, however, substantial agreement as to the elements to be included. The required disclosure ordinarily includes a technical description of the invention, also referred to as the *specification*; drawings if applicable; claims; and any other elements such as an abstract of the invention. The specification typically includes a discussion of the technical field of the invention; a review of the relevant prior art; the object of the invention or problem to be solved; a brief description of any drawings; a statement of how the invention is industrially

[28] TRIPS Article 29.

[29] *See, e.g., Guide for Applicants*, European Patent Office, http://www.european-patent-office.org/ap_gd/index.htm; *A Guide to Filing a Non-Provisional (Utility) Patent Application*, United States Patent and Trademark Office, http://www.uspto.gov/web/offices/pac/utility/utility.htm; *Frequently Asked Questions*, Japanese Patent Office, http://www.jpo.go.jp/.

applicable; a technical description of the invention as claimed; and a detailed account of at least one way of carrying out the invention as claimed.

A statement of the technical field of the invention can be very succinct. The following examples are taken from patents issued to Egyptian inventors:

- This invention relates to a water heating system or apparatus and more particularly to a solar water heating apparatus wherein water acts as a heat transferring medium. *El-Shayeb, Integral solar water heaters, U.S. Patent 4,452,23.*

- The present invention relates to a racquet for playing a ball game. *Lotfy, Racquet for playing a ball game, U.S. Patent 4,549,736.*

- The present invention concerns a modular construction system for the erection of buildings in which hollow-core construction blocks are superposed upon one another without intervening mortar and are intended to be filled with concrete. *Hegazi, Modular construction system for the erection of buildings, U.S. Patent 4,590,729.*

- This invention relates to a method and apparatus for applying cryotherapy and more particularly to apparatus and methods employing specifically shaped elongated tubular needles inserted through the skin of a patient to destroy lesions by passing a cryogen through the needle. *Weshahy, Methods and apparatus of applying intra-lesional cryotherapy, U.S. Patent 4,802,475.*

- This invention relates to compositions and methods for improving the nutritive value of cereal based breads, to novel microbes useful in the fermentation of breads which thereby provide improvements in the bread's nutritive value, to grain and microbe mixtures, and to yeast and microbe mixtures from which breads may be produced. *El-Megeed et al., Methods and compositions for improving the nutritive value of foods, U.S. Patent 4,897,350.*

The application should also review the relevant prior art, so far as it is known to the applicant, that is useful for understanding the invention. The applicant is not obliged to make a search of the prior art before filing an application, although it is often prudent to do so. However, if a search has

been made, the application should disclose any relevant documents to the Patent Office. In any event, an inventor will most often have some familiarity with relevant prior art and should disclose that art. Documents should be cited where possible, and if cited, the reference should be sufficiently complete to enable another person to identify and consult them.

Prior art is cited to the Patent Office for several reasons: as a matter of candor to the Patent Office; to protect the inventor's interest in obtaining a valid patent; and to aid in describing the invention. Applicants will sometimes be aware of prior art that is unlikely to be discovered by the Patent Office in a routine search. In such cases, the temporary advantage of withholding such information is more than offset by the potential liability of attempting to enforce an invalid patent, and in any event, withholding such information misleads the Patent Office and is unethical. In some countries, agents or attorneys can be disciplined for withholding such information.

A discussion of the prior art helps to define the subject matter of the patentable invention, *i.e.*, that part of the inventor's work that is novel, that is not merely an obvious improvement on the prior art, and that is industrially applicable. It is by reference to the prior art that the application can explain how the invention provides a new solution to an existing problem.

A patent application usually contains one or more technical drawings that aid in describing the invention. These drawings contain figures that illustrate aspects of the invention. The specification should contain a brief explanation of the types of drawings included. The technical description then recounts each element of the invention, typically referring to features of the drawings to help explain the invention.

The application must describe the invention, how it is made and how it is used. This description must be clear and unambiguous. If the invention is a device, each part should be identified, along with any necessary features of the part and the way it is attached to, or cooperates with, other parts of the device. If the invention is a composition of matter, the materials used to make the composition and the process for making it should be disclosed, together with any necessary parameters, such as proportions of ingredients or the range of temperatures at which the process works. If the invention is a process, each step should be enumerated along with required materials and the conditions under which the process operates.

The legal requirement to provide a description is not met if the application does not expressly or inherently disclose the claimed invention. It is not necessary to recite a feature that is *inherent* in the technology. For example, if the application discloses that a bumper is faced with rubber strips, it is not necessary to recite that the strips will absorb some shock as that is inherent in the nature of the rubber bumper strips.

In preparing a technical description, it is essential to proceed in an orderly manner, as omission of an essential element, or failure to relate it to other elements of the invention, is a fatal defect in the application. Correcting such an omission may require introduction of *new matter*, *i.e.*, information not in the original application, which is not permitted. The applicant may re-file an application with a correct description of the invention but takes the chance that an application with a later filing date will no longer be patentable. For purposes of determining whether an amendment adds new matter, the specification, drawing, claims, and abstract of the application as filed must all be considered part of the original disclosure.

Enablement

A patent application must disclose the invention in such full and clear terms as to enable a person skilled in the art to practice the invention on the basis of the disclosure and what is known in the art, without undue experimentation. The disclosure should provide a basis for each element of the claims. It must recite all essential features of the invention, the way the elements relate to each other, and any qualifications or limitations necessary to make the invention work as claimed. If an essential element is omitted, the disclosure is not enabling.

It is not necessary to recite a feature that is inherent. However, a claim should not be broader than is disclosed in the specification. The disclosure must describe the invention so clearly that the claims would be understood by a person skilled in the art to relate to the invention. The degree of specificity that is required should be commensurate with the scope of protection claimed.

Requiring an enabling disclosure limits an applicant's ability to obtain a patent and also maintain a trade secret in the invention. This requirement prevents a patent applicant from disclosing, for example, only the broad outline of the invention while withholding information that would enable others to make or use the invention. Any information needed to make the

invention workable must be disclosed. Otherwise, the application may be rejected or, if a patent is issued, held invalid and unenforceable by the courts.

Operability

A patented invention must work as claimed. If it does not, it is not operable and is therefore unpatentable. One common defect is omitting an essential element or its relationship to other elements of the invention, or misstating that relationship. In such cases, the invention *as described in the application* will not work as claimed. Another situation in which an invention is unpatentable for lack of operability occurs when the application claims characteristics that the invention does not have, or results it does not produce.

This problem can arise with any invention. However, it is particularly likely in the absence of reliable experimental data. Most practitioners will, at some point, be asked to obtain a patent for a supposed "breakthrough" invention that, upon examination, does not work as the inventor asserts. In some cases, the results claimed for the invention may only be achieved by violating a law of nature. Cures for disease and perpetual motion machines are favorite examples of inoperable inventions proposed by sincere but naïve applicants.

The pitfall of filing an application for an invention that does not work as claimed can be avoided by proper attention to the preparation of the application. It is not sufficient to recite the objective to be attained, *e.g.*, a supply of energy or cure for cancer. It is necessary to recite how that objective is to be achieved, in whatever degree of detail is necessary to make the invention understandable by a person skilled in the relevant art. Of course, scientific breakthroughs do occur. In such cases, it is useful to demonstrate the operability of the invention by including actual test data in the application.

Best mode

The term *best mode* refers to the preferred way of carrying out the invention. A patent application typically discloses an invention in such a manner as to obtain the broadest possible coverage. If there is more than one way to carry out an invention, the inventor may be tempted to disclose examples that are not especially helpful but support the claims, while

keeping the most satisfactory embodiments as a trade secret or at least by simply failing to mention the more satisfactory features of the invention. If domestic law requires disclosure of the *best mode*, the inventor cannot withhold information but must, instead, disclose the preferred embodiment or method.

Drawings

Most patent applications should include one or more drawings that illustrate the invention. Most inventions are described – and understood - more easily with reference to a drawing, and in many cases, it is practically impossible to make an enabling disclosure without reference to a drawing.

Attorneys and agents who prepare patent applications will find it useful to establish a relationship with an experienced draftsperson to prepare the high-quality technical drawings required by most patent offices. This is helpful since patent rules may have strict requirements for patent drawings.[30] In addition to preparing drawings, the draftsperson can often make valuable suggestions about how best to illustrate the invention and in some cases may note problems with the disclosure.

Drawings may show different views of a mechanical object or illustrate parts of an invention, including parts that are not ordinarily visible. Drawings may show the relationship among parts of an invention or the relationship between parts of an invention and items with which it is used. Electrical inventions usually require schematic drawings of electrical circuits. Processes may be illustrated by diagrams or flow charts showing the steps of the process. Several different types of drawings may be needed to describe a single invention. Examples of drawings for several different types of inventions are shown on the following pages. Note the variety of ways used to illustrate features of inventions.

[30] Some patent offices permit the filing of *informal* drawings, *i.e*., drawings that do not meet formal standards for drawings, provided the drawings are legible and adequately illustrate the invention. Before a patent issues, however, formal drawings must be submitted.

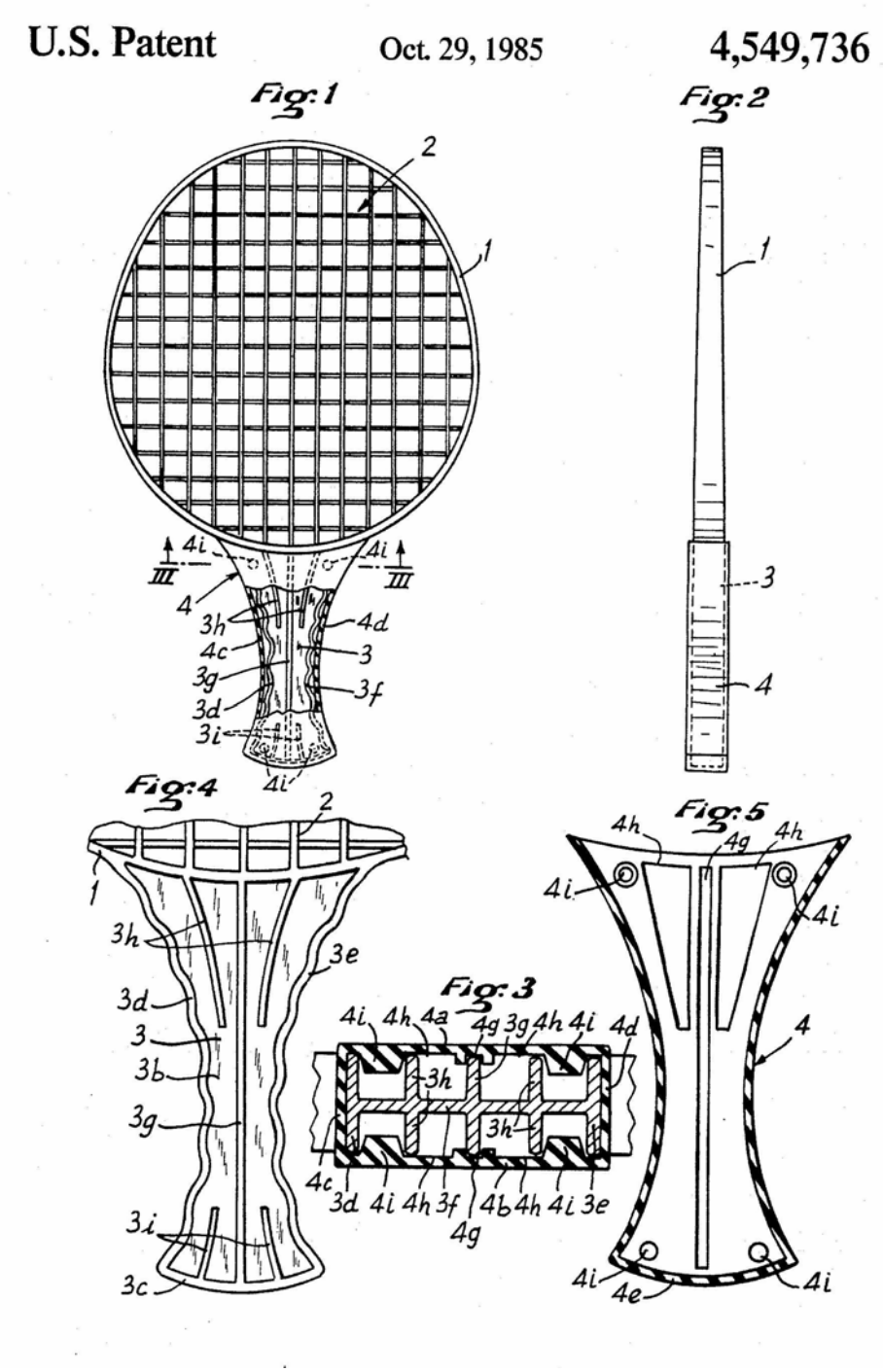


Figure 1. Drawings for device. From U.S. Patent 4,549,736 to Lotfy, Racquet for playing a ball game

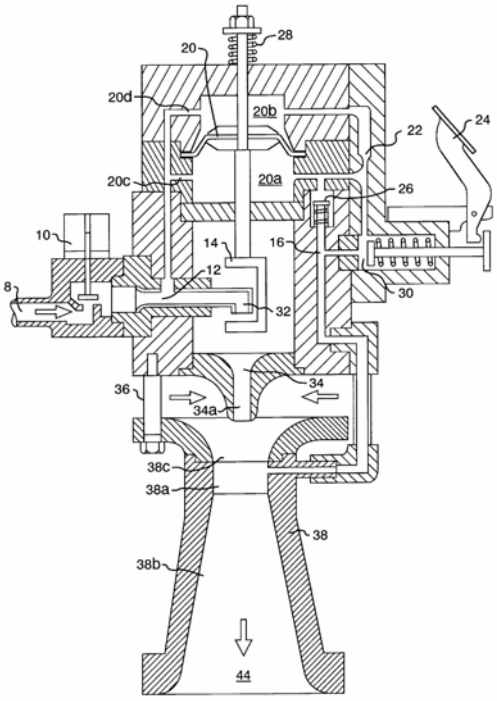


FIG. 1

Figure 2. Drawing for mechanical device showing details of construction. From U.S. Patent 6,050,246 to Abdelmesih for Method and Device for Converting Conventional Gas Engines to Operate on Compressed Natural Gas.

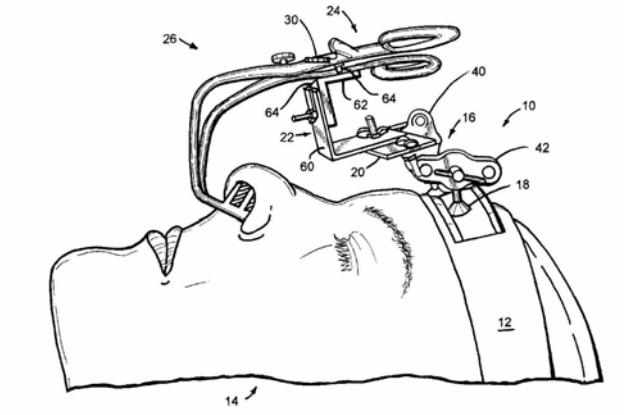


Figure 3. Drawing for mechanical device showing method of use. From U. S. Patent 6,224,546 to Ramadan for Stabilized Cephalic Medical Apparatus and Method of Using Same.

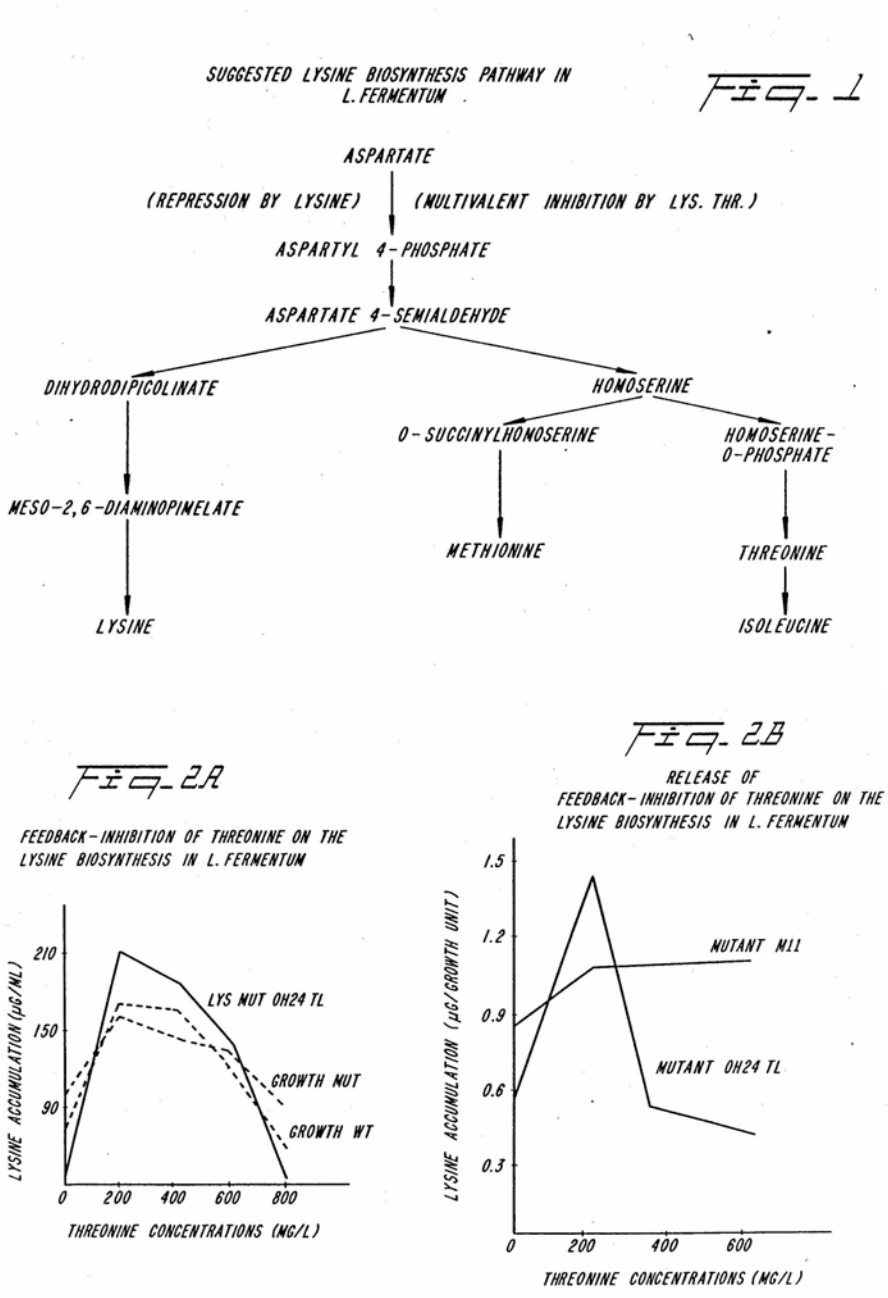


Figure 4. Drawings illustrating microbiological process. From U.S. Patent 4,897,350 to El-Megeed et al., Methods and Compositions for Improving the Nutritive Value of Foods.

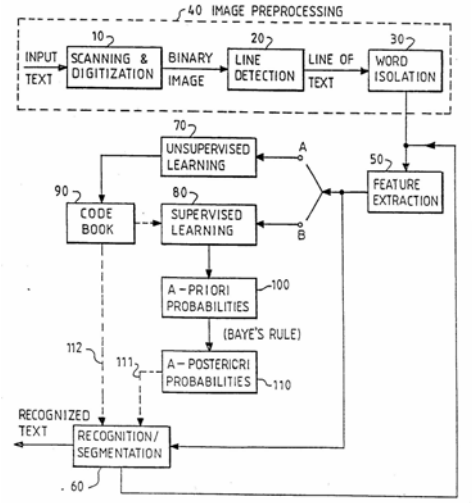


FIG. 1

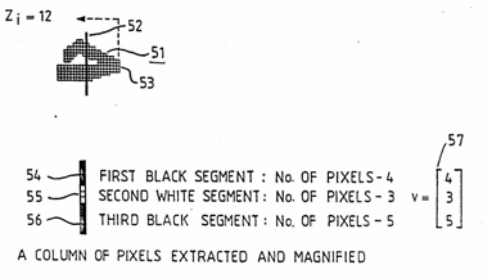


FIG. 2a

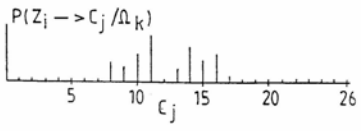


FIG. 2b

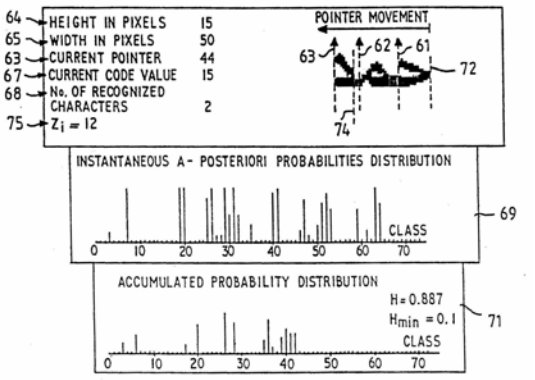


FIG. 3

Figure 5. Drawings for method of character recognition. From U.S. Patent 5,335,289 to Abdelazim for Recognition of Characters in Cursive Script.

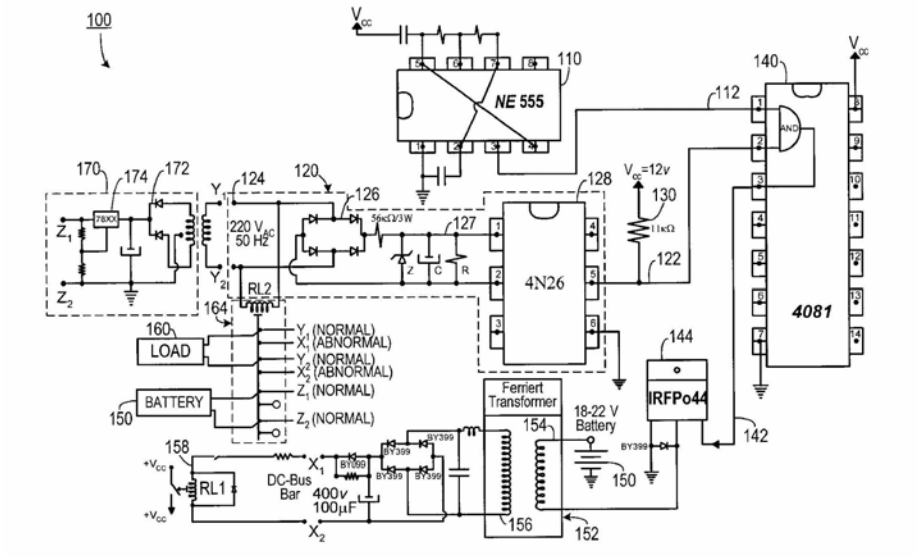


Figure 6. Drawing for electrical device. From U.S. Patent 6,342,736 to Tatari et al. for Inverterless Circuit or an Uninterruptible Power Supply.

Claiming the invention

A patent *claim* is a formal legal description of an invention. It is generally written in a stylized format determined by national law and practice. In American practice, a claim is introduced by language indicating that a claim is made and a preamble that indicates the general type of item being claimed, and followed by a recitation of the elements of the invention. Two types of claims are used, an *independent claim* which recites each element of the invention and a *dependent claim* that refers back to the independent claim (and depends on it) and recites only additional elements or limitations.

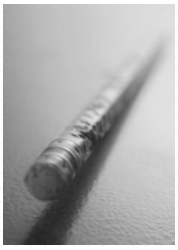
A claim must recite each essential element of the invention. To obtain the broadest coverage, the claim should not recite more elements than are necessary to make the invention operable. Each additional factor mentioned in a claim *narrows*, or constitutes a *limitation*, on the invention. Thus, the greatest scope of coverage of a patent corresponds to the simplest claim. If the language of claims is broad, the disclosure must be commensurately broad.

In a patent for a mechanical device, claim elements typically correspond to parts of the device, its construction or use. In a claim for a device, it is not

sufficient to claim only a "means for" accomplishing some objective. That is, a person cannot simply claim a "means for" accomplishing some result, such as generating energy or alleviating pain, as such language does not meet the requirements of disclosure or enablement. The use of "means" language may be appropriate as an element of a claim if it is clear that there are several ways to accomplish the particular function *and* if supported by the disclosure. For example, the claim may refer to a means of attachment if there are several different ways to attach the item, any of which would be satisfactory. However, if a special means of attachment is required, the claim should include an appropriate limitation.

Similarly, a process patent claim recites the steps of the process and perhaps its use. A process always includes more than one step, *i.e.,* a claim cannot simply state that it is "a process for" accomplishing some objective, *e.g.*, "a process for purifying water." The claim is not enabling unless it recites each step of the process.

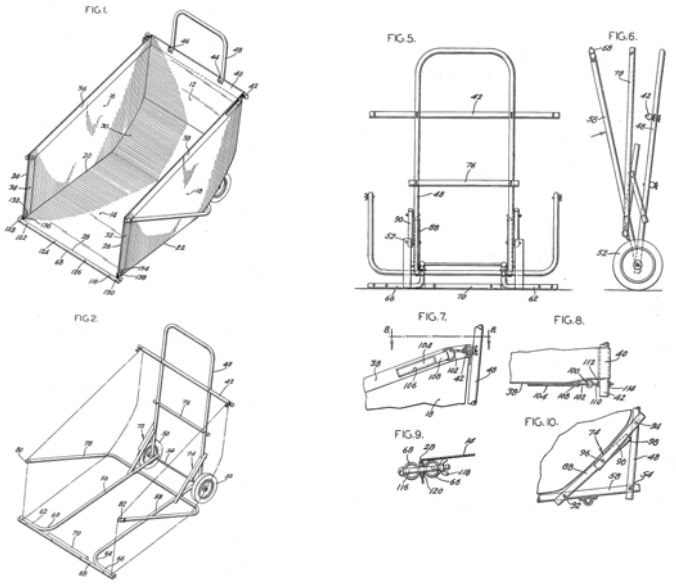
Shown below are selected elements from two different patents. Compare the drawing(s) and abstract with the corresponding claim. Each begins with a statement of claim and recites various elements of the invention and the relationship between those elements. Also note that each includes both independent and dependent claims and recites increasingly more detail.



An item is ordinarily not patentable if it merely combines two known items that would naturally be used together, such as a pencil and eraser.

Prior art

Prior art is defined in the patent law of each country. At a minimum, it includes patents and publications published before the filing date of the patent application. It may also include oral presentations, offers for sale, and information that is part of the general knowledge. Even though no one has written about a traditional craft, a person could not obtain a patent on it and thereby deprive others of the ability to continue to make the item in the traditional way. If an application has been filed in another country, the date of that first filing may be the relevant date for determining whether a particular reference is part of the prior art and therefore used to judge whether the application meets the requirements of novelty and inventive step.



Abstract

A folding cart comprising a fabric body and a collapsible tubular frame comprises tubular members extending longitudinally underneath the bottom of the fabric body for supporting the load and preventing the formation of pockets which impede unloading. Wheels are located behind and underneath the body, and are prevented from coming into contact with the body by protective fenders which also serve as collapsible braces for locking the frame elements in the open condition. The front edge of the bottom of the body is protected by a clamping member. The tubular members underneath the body are arranged substantially in an inclined plane in order to insure that the front edge of the body is able to come into contact with the ground despite irregularities therein.

Figure 7. Abstract and selected drawings from U.S. Patent 4,222,585 to Crowthers et al. for Folding Cart.

Folding Cart Claims

I claim:

1. A folding cart comprising:

a scoop-shaped body of flexible sheet material, said body, when in an opened condition, having an open front, a bottom wall, a rear wall, and side walls extending upwardly from the bottom wall;

a pair of wheels rotatable on an axis located adjacent the intersection of said rear wall and said bottom wall;

frame means comprising a first substantially rigid frame member extending substantially from the front edge of said bottom wall to said axis, and a second substantially rigid frame member extending substantially from said axis at least to the upper edge of said rear wall;

said first and second frame member being pivotally connected together substantially at the location of said axis, whereby the upper edge of said rear wall can be brought into close proximity to the front edge of said bottom wall;

said first frame member comprising means extending longitudinally from the front edge of said bottom wall substantially to the location of said axis, and providing support for said bottom wall from the front edge to the rear of said bottom wall, said longitudinally extending means being spaced laterally inwardly from said side walls;

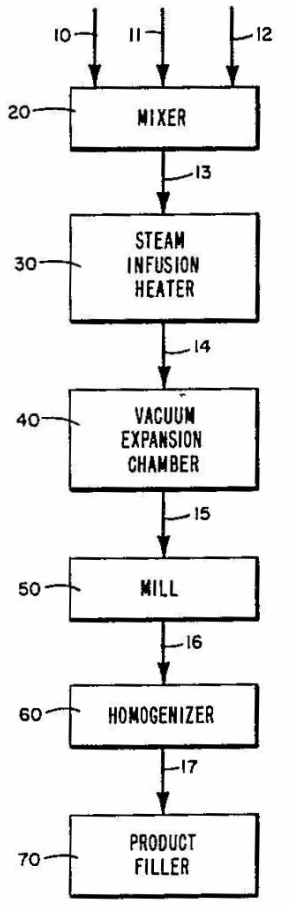
said wheels being located behind said body and laterally inward with respect to said side walls; and

means, connected to said frame means for preventing contact between said material and said wheels, when said body is in its opened condition.

Figure 8. First claim from U.S. Patent 4,222,585 to Crowthers et al. for Folding Cart.

Abstract

This invention provides a process for preparing blended tomato products of increased consistency wherein a concentrated tomato product is rapidly heated by direct contact with high temperature steam, rapidly expanding to a lower subatmospheric pressure and then milled through a screen having small openings. This process substantially increases the consistency of concentrated tomato products.



Claims

I claim:

1. A process for preparing blended tomato products of increased consistency comprising:
(a) rapidly heating a concentrated tomato product to a temperature of at least about 250.degree. F. (120.degree. C.) by direct contact with high-temperature steam in a steam in fusion heater,
(b) rapidly expanding the heated concentrate to a lower subatmospheric pressure, and
(c) milling the rapidly expanded concentrate through a screen having openings smaller than 0.85 mm so as to cause a substantial increase in the consistency of said concentrate.
2. The process of claim 1 in which the tomato concentrate is rapidly heated to at least about 300.degree F. (150.degree. C.).
3. The process of claim 2 in which said heated concentrate is expanded to about 0.8 atmosphere absolute pressure or lower.
4. The process of claim 1 in which the concentrated tomato product contains at least a portion of the flavor additives used for preparing the blended tomato product.

Figure 9. Abstract, figure and selected claims from U.S. Patent 4,556,576 to Gaehring for Process for Preparing Tomato Products of Increased Consistency.

Examination and patent prosecution

Once an application is filed, it may be subject to examination. *Examination* is the process of reviewing an application and comparing it with any prior art to determine whether the application meets the requirements for patentability and otherwise conforms with the law. Examination generally includes a number of steps: reviewing the application to see whether it meets formal requirements, such as a power of attorney or the presence of a claim; reviewing the application to determine whether it contains an enabling disclosure; and comparing the claims with the prior art to determine whether it meets the requirements of novelty, inventive step, and industrial applicability.

Often, the examination process includes an exchange between the applicant and patent examiner, with the examiner citing possible reasons for rejection and permitting the applicant to respond to these reasons. *Patent prosecution* refers to actions by the applicant, or his or her attorney or agent, to seek a patent. Patent prosecution includes preparing responses to office action, making any necessary modifications of the application, and if necessary, appealing against decisions of the examiner. The primary elements of patent prosecution include proposing counter-arguments to those made by the examiner and amending the application to include any necessary limitations. An applicant can even broaden claims after filing if the application contains information that would support the new claims.

The objective of patent examination should be to identify every impediment to patentability and to give the applicant an opportunity to remedy it if necessary. The objective of the applicant should be to discover the broadest protection that is consistent with the applicant's invention and the prior art.

The relationship between an applicant (or applicant's agent or attorney) and the examiner should be independent and respectful but not adversarial. The examiner has no need to prevent the applicant from obtaining a patent. It is entirely appropriate for the examiner to offer helpful information to an applicant (although it is not the examiner's responsibility to take charge of patent prosecution). It is likewise not in the applicant’s interest to obtain an invalid patent, which cannot be enforced and may result in substantial liability for the owner.

Distinction between novelty and inventive step

Novelty and inventive step are related concepts. In order to be patentable, an invention must both be novel (new) and contain an inventive step. Both conditions are determined with reference to the prior art. However, novelty and inventive step are distinct conditions for patentability.

Novelty

An invention is *novel*, or *new*, if it is not identically disclosed in the prior art. When a claim is unpatentable for lack of novelty, the cited reference must teach every aspect of the claimed invention, either explicitly or impliedly. To establish lack of novelty, any feature must either be directly taught or else inherently present in the invention.

An item is ordinarily not patentably distinct from another item of the same type because the newer item is made from a different material, such as a doorknob made from glass instead of metal.

An *inherent* feature is one that is unstated but is a natural characteristic of, or inseparable from, elements cited in an application. For example, an invention might disclose a corrugated cardboard box and claim the feature that it can be closed by bending the flaps. This feature does not add to the characteristics of the invention because it is inherent that corrugated cardboard can be bent. Usually, chemical and physical properties, such as melting point of a compound or capacitance of a semiconductor, are inherent, but most issues, such as whether a method for monitoring a series electrical circuit also teaches a method for monitoring a parallel circuit, must be resolved by considering what is common knowledge of those skilled in the relevant field of technology.

If a claim is rejected for lack of novelty, all the features must be present in a single item of prior art. That is, all the elements of the claim must be mentioned in a single patent or a single printed publication, or they must all be present in a single item that is part of the prior art as defined under the law of the country where the patent application is filed.

> **Example:** The claimed invention is a car with a cassette tape player. The claims are rejected over Reference A, which discloses both a car and a cassette tape player, with a suggestion that such cars and sound equipment can be combined.

Inventive step

An invention which is not identically disclosed in the prior art is still unpatentable if it does not have an inventive step. An invention has an *inventive step* if it is not merely an obvious improvement on the prior art. For a claim to be unpatentable for lack of inventive step, the prior art must teach elements that, if modified in an obvious way, would disclose the claimed invention. That is, the modifications would have been obvious to a worker of ordinary skill in the art at the time the invention was made. This skill level is relevant to the ability to combine elements. It is assumed that the person of ordinary skill is in possession of all prior art.

An item is ordinarily not patentably distinct from another item of the same type because the newer item is a different size.

As with novelty, a determination of inventive step involves searching for elements that are already known. A determination of inventive step differs from a determination of novelty, however, in that these elements may be drawn from more than one piece of prior art if it would be obvious to combine them to form the invention being examined.

An invention does not necessarily lack inventive step merely because each of its elements is found in the prior art. After all, every invention is based on elements already in existence. It is only appropriate to combine elements of prior art to form a rejection for lack of inventive step if there is some basis to suggest combining elements the elements. This basis could be a suggestion in the references themselves or common knowledge in the relevant field of technology.

> **Example 1:** The claimed invention is a car with a compact disc player, and the claims are rejected over Reference B, which discloses a car with a cassette tape player but does not disclose a compact disc player. If a person with ordinary skill in this art would know that a compact disc player could be substituted for a cassette player in a car, the combination lacks inventive step.

Example 2: The claimed invention is a battery-operated cassette tape player, and the claims are rejected over Reference B in view of reference C. Reference B discloses a cassette tape player with a power source from an ac outlet but does not disclose the use of batteries to power the cassette tape player. Reference C discloses the use of batteries to substitute for an ac power source. If it would be obvious to a person with ordinary skill in this art that batteries could be substituted for ac power to operate a cassette tape player, the combination lacks inventive step.

Defenses to assertion of lack of novelty or inventive step

There are three basic defenses to an argument that an invention is unpatentable because it is not novel or lacks inventive step.

- **The application has an earlier effective filing date than the cited references.**

This is sometimes referred to as "swearing behind" the references. An application is entitled to be evaluated on the basis of the technology that existed at the time the application was filed. If the patent application was filed before the references became part of the prior art, the cited art is not "prior art" in relation to the application and is therefore not a basis for rejecting it.

The "filing date" of a patent application is not necessarily the date that the application was filed in Egypt's Patent Office. Instead, it is necessary to look at an application's effective filing date. The effective filing date of a patent application is the earlier of its actual filing date or its priority date, if applicable. If an application is a continuation or divisional application of another application, the effective filing date may be the actual filing date, or priority date, of the application on which the present application is based.

- **The cited references do not contain all the elements of the invention.**

Lack of novelty: The question of whether an invention is novel is determined by comparing the claim with a single item of prior art. To show a lack of novelty, all elements of a claim must appear in the cited reference or be inherent in it. If the cited reference lacks an element of the claim, it is not sufficient to establish a lack of novelty. It is therefore useful to review carefully both the reference and the invention to determine whether all the

elements of the invention are in fact included in the reference. Identifying the ways that a new item differs from what is already known is an essential skill for a patent attorney since this is the first and most basic element of determining patentability.

Lack of inventive step: To show lack of inventive step, all elements of a claim must be taught, although not necessarily in identical form or in a single reference. Lack of inventive step can be shown if all the essential elements appear in one or more references that it would be obvious to combine, or if all the elements of the claim appear in a modified form so that it would be obvious to substitute the element claimed for an element that is shown in a reference. If elements of the claim are not cited, even in modified form, then the references do not establish a lack of inventive step.

> **Example:** An invention claims a battery-operated CD player. The cited reference discloses a CD player with a power source but does not specifically mention batteries. It would be obvious to substitute a battery for the power sources mentioned.

- Although the cited references contain the elements of the invention, it would not be obvious to combine them**.**

Whether an invention contains an inventive step is ordinarily determined by the judgment of an expert in the relevant field. It is not sufficient to establish that all elements of an invention are found in the prior art. That is true of virtually all inventions.

The applicant can respond to a rejection based on lack of inventive step by arguing that it would not be obvious to combine the teachings of the references cited. References should not be combined if that they concern unrelated subject matter.

The applicant may also argue that it is obvious to try a particular combination but there are technical reasons that prevent the combination from working effectively. If that is known, the applicant would argue that the combination was not obvious because the prior art *teaches against* that combination, in which case the particular combination would not be unpatentable for lack of inventive step.

Rights conferred by a patent

A patent confers a specific set of rights defined under national law. Under TRIPS Article 28, a patent for a product must give the owner the right to exclude third parties from making, using, selling, offering for sale, or importing for those purposes the patented product, without the consent of the patent owner. If the invention is a process, the patent must give the owner the right to prevent third parties from using the patented process, and from making, using, offering for sale, selling or importing for such purposes at least the product obtained directly by that process. The patent law must also guarantee the owner's right to assign, transfer by succession, or license the patent.

TRIPS Article 30 allows Members to make limited exceptions to the rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties. Although particular exceptions are not defined, a WTO Member's ability to create exceptions is not unlimited. The WTO has reviewed several complaints alleging that a Member has not conformed with this provision by providing for overly broad exceptions to the patent rights conferred by a patent. In one decision, a panel held that a provision of Canadian law allowing the manufacture and stockpiling of pharmaceutical products within the last six months of the patent term for purposes of sale after the patent expired was inconsistent with Canada's TRIPS obligations.

This is a developing area of the law. Although a panel report in one dispute is not binding on panels in subsequent disputes, it is instructive to review this information. The most convenient source of information on such disputes is through the WTO website, at http://www.wto.int, which provides panel reports by topic and date.

Members are also allowed to provide for use of inventions without authorization of the patent owner in certain exceptional cases, subject to limitations of TRIPS Article 31 (and TRIPS Article 32, concerning forfeiture and revocation). In addition to limitations specified in the TRIPS Agreement, Egypt is bound by the Paris Convention which also places conditions on the granting of compulsory licenses. Compulsory licenses should be granted only rarely, but it is wise to be aware of limitations on the Government's ability to provide for a compulsory license or revoke a patent.

Patent protection of living matter

The requirement to protect inventions in all fields of technology includes living organisms. TRIPS Article 27.3 permits WTO Members to exclude from patentability "plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof." Thus, WTO Members are required to offer patent protection for microbiological inventions and may offer patent protection for any organism that otherwise meets the criteria for patentability.

Inventions relating to living matter are not new. French chemist Louis Pasteur received a patent in 1873 for a process, now called *pasteurization*, for killing undesirable microorganisms without also killing other microorganisms necessary to the fermentation process.[31] The first patent claiming living matter as its subject was issued to Ananda Chakrabarty in 1981 for a genetically engineered strain of bacteria that would degrade (break down) hydrocarbons and could thus be used to clean up spills of petroleum.[32]

Other research in this area has been directed toward the use of microorganisms that could be sprayed on fruit, such as strawberries, to prevent freezing. The first patent on a larger animal was issued for a transgenic mouse, that is, a mouse that had been genetically engineered to include certain human genes so that the mouse could be used in the study of certain types of tumors that afflict humans but not mice.

Although mice and microorganisms attract attention from the press, the most significant volume of patents for living matter is for asexually reproduced plants, for which more than 12,000 plant patents have been issued in the United States. This is in addition to other types of patents, and other forms of protection for plants, such as plant variety protection, which are discussed below.

[31] U.S. Patent No. 135,245, Pasteur, Louis, Improvement in brewing beer and ale, January 28, 1873. This patent refers to a French patent for Process for making beer, issued June 28, 1871.

[32] U.S. Patent No. 4,535,061, Chakrabarty *et al*., Bacteria capable of dissimilation of environmentally persistent chemical compounds, August 13, 1985.

Patent protection for microorganisms creates interesting challenges, particularly with regard to the requirement of making an enabling disclosure. In some cases, the materials involved in a patentable invention concerning living matter are well-known and readily available. In other cases, the building blocks of the invention are special strains of particular genetic makeup. One solution to such problems has been to require the applicant to deposit a sample of the microorganism or other genetic material in a recognized depositary for such materials. These depositaries receive and store cultures that are deposited with them and make samples available under agreed terms. The requirement of deposit may not be applicable in every case involving a patent for living matter, but in cases where it is necessary, the failure to make the sample available may be considered to be a failure to make an enabling disclosure, which is a fatal defect in any patent application.

The requirement to make a deposit could easily become burdensome to an applicant who filed applications in more than one country. This problem has been addressed by the establishment of a system of internationally recognized depositories and agreement by various countries to recognize a deposit made in such a depository as satisfying the deposit provisions of national law. The Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure creates a system under which contracting parties to the treaty agree to recognize such international deposits as satisfying the deposit requirements of their national patent laws. The Budapest Treaty also addresses such issues as the procedures for making a deposit, import and export restrictions, and what procedures will be followed if a deposit is no longer viable.

International protection of inventions

As a general rule, if protection is desired in more than one country, applications must be filed in every country where it is desired to have a patent. There are several exceptions to this statement. One is the possibility of filing in regional offices - the European Patent Office, the African Regional Industrial Property Office, or the Organisation Africaine pour la Propriété Industrielle - and designating those member countries in which protection is desired. Typically, it will be necessary to have an agent in each country at some phase of the proceedings. Another major exception is filing under the Patent Cooperation Treaty, which allows the filing of a single "international application" and designating the countries in which patent protection is desired. The result of a successful filing is not an

international patent - no such thing exists - but a bundle of national patents. Finally, there are a few situations in which one country agrees to give effect to patents issued in another country, either by agreement or under its domestic law.

The fact that a patent can only be obtained for an invention that is novel poses some difficulties for applicants who want to obtain patents in more than one country since an issued patent in one country would prevent an applicant from obtaining a patent in any other country. Some help is available through the Paris Convention for the Protection of Industrial Property (Paris Convention).

The Paris Convention provides for a *right of priority* that enables an applicant who is a national of one country that is a member of the Paris Convention to file an application in another country that is also a member of the Paris Convention and have the application treated, in that other country, as though it was filed on the date of the first-filed application. This right of priority is one year for a patent application or utility model and six months for an industrial design. An applicant is entitled to rely on the filing of an application for a patent, industrial design, or utility model registration to establish a priority date for any of these forms of protection for an invention. The TRIPS Agreement extends Paris Convention provisions on the right of priority to all WTO members.[33]

The laws of some countries provide a *grace period*, typically six months to a year immediately preceding the filing date. During the grace period, actions by the inventor do not create a bar to patentability for lack of novelty or inventive step. A grace period helps to define what is meant by prior art under the law of a particular country. This period applies only to the issue of patentability in that country. It does not effectively extend the priority period.

Another approach to facilitating foreign filing has been the adoption of agreements such as the Patent Cooperation Treaty and the European Patent Convention, under which an applicant in one country can file a single

[33] TRIPS Article 2 requires Members to comply with Paris Convention Articles 1-12, with regard to Parts I-IV of the TRIPS Agreement. Those Parts address standards concerning general provisions; the availability, scope and use of intellectual property rights; enforcement of intellectual property rights; and acquisition and maintenance of intellectual property rights and related *inter partes* procedures.

Patent Cooperation Treaty and International Protection of Inventions

The Patent Cooperation Treaty (PCT) offers a bridge between an increasingly global economy and legal systems that are based on national law. Businesses have to operate in both regimes. One critical decision is the choice of where to protect inventions. To obtain patent protection requires filing a patent application in each country where protection is desired. In some cases, it is possible to effect filing in several countries through a regional industrial property office, but whatever method is used, the cost of filing worldwide is likely to cost in excess of LE 350,000, and in some technologies, several times as much.

Not only is the process of obtaining patent protection expensive, it offers no guarantees. Approximately half of all applications filed in the Egyptian Patent Office will finally issue as patents. The percentage is slightly greater for internationally filed applications, many of which will have been amended as a result of examination in another patent office. This is consistent with results in other patent offices around the world.

Not surprisingly, businesses would prefer to have the benefit of more information before making costly decisions regarding foreign filing. Unfortunately, the time for making filing decisions is short.

In most countries, an invention becomes unpatentable once a patent issues or the application is published in any country where an application has not already been filed. In some countries, the period between filing and issue is several years, but in a few countries, patents are granted almost immediately. In most countries, publication occurs after eighteen months.

For Paris Convention and WTO Members, the *right of priority* extends the time for filing to one year from the date of filing the first application in a Paris or WTO Member. This is still a short time in which to make important and costly decisions. Consequently, businesses often do not know whether they are investing in a patentable or unpatentable invention until after the deadline for foreign filing. This poses a dilemma for businesses – whether to gamble thousands of pounds to protect an invention that may prove to be unpatentable, or to fail to protect an invention in critical markets.

application and designate several countries in which he or she hopes to obtain a patent. Applications filed under these agreements are treated as a single application through a certain phase of processing and then eventually are either refused or issue as a bundle of national patents.

Infringement

A person who carries out any of the exclusive rights of a patent, without the owner's consent, is said to *infringe* the patent. Infringement is established by comparing the claims of a valid patent with the allegedly infringing item and showing that the infringing acts were done without authorization of the owner.

There are no other requirements for showing infringement. The patent owner is not required to place the patent number on labels or otherwise give notice of infringement. That is, infringement does not depend on a showing that the alleged infringer intended to infringe or even had actual knowledge of the patent. Notice of a patent is published in an official journal of the Patent Office of each country, and this notice provides constructive notice of the patent to all parties. In practice, patent owners usually give actual notice to persons believed to be infringing, along with a demand to cease infringing.

Infringement of a patent requires that the allegedly infringing include all elements of the claim. If the patented invention is a device, the patent owner must be able to identify a part that corresponds to each element of the claim. If the patented invention is a process, it must include each step mentioned in the claim. If the invention is a composition of matter, the item must include each ingredient of the claim. Claims also often indicate that the invention exhibits certain characteristics or operate within certain parameters. If the claims contain such language, the device must likewise exhibit those characteristics or operate within those parameters in order to constitute infringement. It is not necessary, however, that the allegedly infringing device contain all limitations of the claims.

Claim construction

Claims define the legal limits of a patent. Judges and attorneys are therefore called on to interpret those claims and to give opinions as to whether a particular course of action would infringe the patent. Sometimes, the language of claims so clearly reads on a particular item of technology

that no construction is necessary. In most cases, however, a determination on infringement depends on the interpretation of those claims.

Claim construction is both a legal and technical matter. As a legal document, a patent is subject to certain rules of construction. As a technical matter, claims must be interpreted in terms of technology, and the advice of an expert is essential.

The first step in claim construction is to look at the plain language of the claim, read in light of the disclosure. In many cases, the "plain language" is highly technical and appears to be anything but plain. However, the first step is to consider the language of the claim relative to the allegedly infringing item and attempt to identify in the allegedly infringing item an element that corresponds to each element in the claim. If the item contains an element that corresponds to each element of the claim, there is apparent infringement. The disclosure should also be reviewed with a special view to determining whether it contains any limitations not reflected in the claim.

If there is not apparent infringement because one or more elements of the claim is not present in the allegedly infringing item, one must also consider whether the item contains elements that are, from a technical point of view, equivalent. If so, the item may be infringing. Whether an element is equivalent is a technical matter, based on the judgment of a person skilled in the relevant technology.

Preliminary matters

A suit for patent infringement usually is preceded by a demand to the alleged infringer to cease infringement. If the demand is successful, it may obviate the need to engage in litigation, which is expensive and time-consuming and poses a risk for both parties. If the demand is not successful, the patent owner can point to the effort and ask the court to treat the infringement as intentional or willful. This may affect an award of damages or permit criminal enforcement if that is provided under the national law.

Enforcing patent rights

A claim for patent infringement is brought in the court of competent jurisdiction, as set under the law of the country where the patent is effective and possibly being infringed. In countries where the law permits, the owner may seek criminal enforcement through the channels identified for that

purpose, such as making a complaint to the police. Since patents are primarily an economic tool, however, the most effective enforcement is usually accomplished by putting an end to the infringement and recovering the economic benefit for the patent owner.

In some countries, a specific court is designated for certain intellectual property cases. That court may have special rules for patent cases, or particular matters may be specified in the patent law. However, in the absence of any special provisions, the civil procedures and evidentiary rules that apply in patent cases are the same as those set for other types of civil cases.

Patent cases usually require the appointment of an expert. Experts in patent cases should be qualified both as to the relevant field of technology and also as to the application of the patent law to the particular technology at issue in the case.

The patent owner has the burden of showing infringement. A *prima facie* case is made when the owner presents evidence that he or she owns the patent, that the alleged infringer is engaging in one or more of the acts to which the patent provides exclusive rights, and that the patent claims read on the infringing activity, *i.e*., that the infringing activity concerns an item that corresponds to each element of the claim. The alleged infringer then has the burden of demonstrating any defense. This can be done by defeating any element of the patent owner's case, for example by showing that the object of the suit does not correspond to the claims of the patent or that the allegedly infringing activity was authorized, by an agreement with the patent owner or through some other means, such as use prior to the publication of the patent or a compulsory license. The other primary defense is to attack the patent itself, to show that it is invalid because it fails to meet the requirements for patentability. The elements of a claim for infringement and possible defenses are shown below.

Civil remedies

The patent owner may ask the court for any remedy available under domestic law. These should include an *injunction*, or court order to the alleged infringer to cease infringement; an order suspending customs release if the infringing goods are being imported; damages to compensate for the injury; recovery of profits and/or pre-established damages if provided by domestic law; and the owner's expenses of the litigation, including the

patent owner's appropriate attorney fees. Damages may be contingent on showing that the infringer knew or had reasonable grounds to know the activity was infringing.

Demonstrating Patent Infringement

A charge of patent infringement must allege

- rights under a patent
  The proper party to bring suit is the patent owner or a licensee authorized by the owner to bring suit.
- that the defendant is engaging in one of the acts to which the patent confers exclusive rights
  - if the patent is for a product, that the defendant is
    - making the product,
    - using the product,
    - offering the product for sale,
    - selling the product, or is
    - importing the product for the purposes of making, using, offering it for sale or selling such product
  - if the patent is for a process, that the defendant is
    - using the process *or*
    - making the product obtained directly by that process,
    - using the product obtained directly by that process,
    - offering for sale the product obtained directly by that process,
    - selling the product obtained directly by that process, or is
    - importing the product obtained directly by that process for the purposes of making, using, offering for sale or selling such product.
- that the patent covers the defendant's product or process. Each element of a claim must be present in the product or process alleged to be infringing.
- that the defendant does not have the patent owner's authorization to carry out such acts.

Defenses to Charge of Patent Infringement

The defendant may defend against a charge of patent infringement by showing any of the following:

- Plaintiff is not a proper party to bring suit
  - Not the patent owner
  - Not the exclusive licensee of the patent and authorized by owner to bring suit
- The patent has expired
  - The patent term has expired
  - The patent has lapsed for failure to pay taxes or maintenance fees
- Defendant has not performed the acts alleged
  It is difficult to prove a negative, but one may be able to show that the defendant was not a party to the acts of infringement alleged by the plaintiff.
- Defendant was authorized to perform the acts alleged to be infringing:
  - By agreement with the patent owner or the owner's agent
  - Acting under a license to another party
- The patent claims do not *read on* the allegedly infringing item.
  The patent owner must show that the infringing activity incorporates each element of one or more patent claims.
- The patent is invalid because
  - It claims unpatentable subject matter.
  - The named inventor is not the true inventor.
  - The inventor made a material statement that is false.
  - The invention was anticipated by prior art (i.e., was not novel in view of the prior art).
  - The invention lacks inventive step over prior art.

  An invalid patent cannot be infringed. Prior art is determined in reference to the effective filing date, taking into account claims of priority. The defendant must introduce pertinent prior art or false statement and demonstrate its materiality.

OTHER STATUTORY FORMS OF PROTECTION FOR INVENTIONS

Patents are the most usual form of protection for inventions. However, there are a number of other forms of protection that may be available for inventions that are not within the coverage of the patent law or do not meet the requirements for patentability.

Utility models

A *utility model* protects industrial innovations of less importance than those that are the subject of a patent. Novelty is generally a requirement for a utility model registration, but no inventive step is required.

Utility models are included in the definition of industrial property of the Paris Convention, Article 1(2). Possibly the most important provisions are found in Paris Convention Article 4A, which establishes a right of priority for any person who has filed an application for a patent, utility model, industrial design, or trademark. This period of priority is twelve months for patents and utility models.[34] However, where an industrial design is filed in a country by virtue of a right of priority based on the filing of a utility model, the period of priority is the same as that for industrial designs, *i.e.*, six months.[35] Furthermore, this provision provides that it is permissible to file a utility model in a country by virtue of a right of priority based on the filing of a patent application, and *vice versa*. [36]

The provisions of Paris Convention Article 5, relating to forfeiture and compulsory licenses of patents, likewise apply to utility models.[37] Paris Convention countries cannot require an indication or mention of the utility model upon the goods as a condition of the right to protection.[38] Paris Convention countries must grant temporary protection to utility models as well as to patentable inventions, industrial designs, and trademarks.[39] Finally, each Paris Convention country must establish a special industrial

[34] Paris Convention Article 4 C.
[35] Paris Convention Article 4 E(1).
[36] Paris Convention Article 4 E(2).
[37] Paris Convention Article 5 A.
[38] Paris Convention Article 5 D.
[39] Paris Convention Article 11 (1).

property service and central office for the communication to the public of patents, utility models, industrial designs, and trademarks.[40]

The Budapest Treaty also is applicable to utility models. Article 2(i) provides that

> references to a "patent" shall be construed as references to patents for inventions, inventors' certificates, utility certificates, utility models, patents or certificates of addition, inventors' certificates of addition, and utility certificates of addition.[41]

Inventors' certificates

Inventors' certificates recognize the contributions of inventors and other innovators. This form of recognition was developed as an alternative to the patent system. Its aim was to provide a method for recognizing and promoting innovative solutions to problems while avoiding the creation of private property rights, which were held in disfavor in certain countries with socialist or centrally planned economies. In countries that discouraged market activities, inventors' certificates were often preferred by inventors because they offered a certainty of some reward, while constraints on the market system made it impracticable to seek the potentially greater rewards of the patent system.

Unlike the patent system, an inventor's certificate does not create exclusive rights in the subject matter. Instead, it provides a system of recognition that may be accompanied by a monetary or other award. In economic terms, inventor's certificates have never been of great importance. With the breakup of the former Soviet Union and the move of most Eastern bloc states from a centrally planned to a market economy, the importance of form of protection has diminished further.

Paris Convention Article 4I provides that applications for inventors' certificates must give rise to the same right of priority as is provided for patents. By the same token, an applicant for an inventor's certificate is entitled to enjoy a right of priority based on an application for a patent, a utility model, or an inventor's certificate. Inventors' certificates are also treated as equivalent to patents under the Budapest Convention.

[40] Paris Convention Article 12.
[41] Budapest Treaty Article 2(i).

INDUSTRIAL DESIGNS

An *industrial design* is any composition of lines or colors, or any three-dimensional form that gives a special appearance to the article and can serve as a pattern for a product of industry or handicraft. The term *industrial design* encompasses both drawings (i.e., two-dimensional works) and models (three-dimensional works).

The purpose of industrial design law is to provide a means to protect ornamental designs for useful objects. Although industrial design law is a distinct aspect of intellectual property law, it shares some characteristics with patent law and some characteristics with copyright. Subject matter that is protected under industrial design law in one country may be protected under patent law, copyright law, or even unfair competition law in another.

Protected subject matter*

The subject matter protected by industrial design law is the ornamental design for a useful object. The design for an article consists of the visual characteristics embodied in or applied to an article, or to a portion of an article, but not the article itself. Since a design is manifested in appearance, the subject matter of a design may relate to the configuration or shape of an article, to the surface ornamentation on an article, or to both.

Design must be a definite, preconceived thing, capable of reproduction and not merely the chance result of a method. The design for an object consists of the visual characteristics or aspect displayed by the object. It is the appearance presented by the object which creates an impression through the eye upon the mind of the observer.

Design is inseparable from the article to which it is applied. Design cannot exist alone merely as a scheme of surface ornamentation. A design that is merely a scheme of surface ornamentation and not integral to the article is more properly protected by copyright.

Invention is often a blend of function and ornamental design. A useful article may possess both functional and ornamental characteristics. Technical or functional features of a design should be protected under patent law, as they are not properly the subject of industrial designs protection. In practice, however, it may be difficult to separate the utility and ornamentality of an article.

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* This section quotes from MPEP Chapter 15, adapted to industrial design law.

Conditions for protection

An industrial design is generally protected if it is new or original and not dictated solely by technical or functional features. TRIPS Article 25 requires Members to protect independently created industrial designs that are new or original. Members may provide that designs are not new or original if they do not significantly differ from known designs or combinations of known design features. Members may also provide that such protection does not extend to designs dictated essentially by technical or functional considerations.

In most countries, industrial designs are protected under a system of registration. This system may rely strictly on registration, in which case entitlement to protection is determined by the courts when the applicant attempts to enforce industrial design rights, or it may include examination similar to that for patents. In the United States, industrial designs are protected as *design patents* if they are new (in the same sense as patents), ornamental (as opposed to useful), and are not merely an obvious improvement over similar designs.

Drawings

Because the essential nature of an industrial design lies in the appearance of the article, it is essential that the applicant submit drawings that fully disclose the design. An application to register a design for a three-dimensional article should include as many views as are required to define the design. Unlike patents for useful items, an industrial design application ordinarily includes little or no narrative description other than a title or brief statement of the nature of the item to which the design relates and an explanation of the drawings. Examples of drawings for ornamental designs are shown in Figures 11 and 12 for two different types of useful objects.[41a]

[41a] Much of the above material in this chapter is drawn from U.S. case law and the USPTO *Manual of Patent Examining Procedure*, Chapter 15.

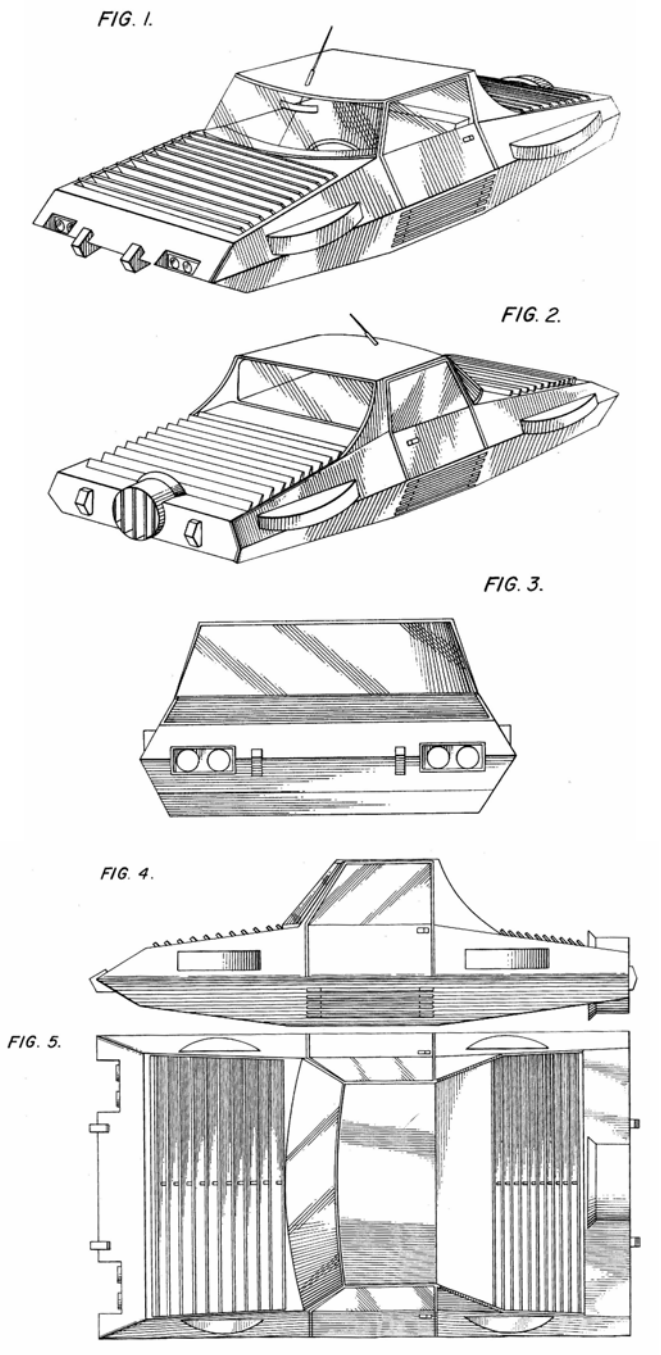


Figure10. Figures from U.S. Design Patent 266,320 to Khoury for ornamental design for Hover Craft.

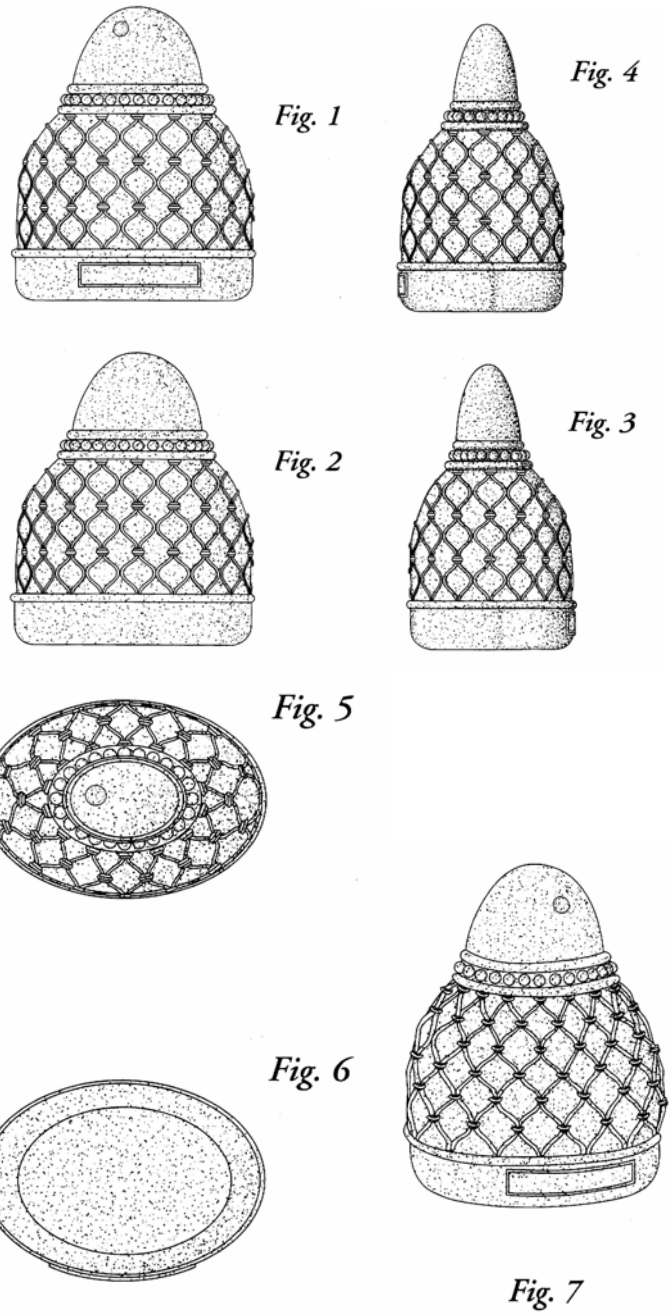


Figure11. Figures from U.S. Design Patent 394,813 to Homsy for ornamental design for Combined Bottle and Cap.

Industrial designs and patents

The chief distinction between an industrial design registration and a patent is that a patent is directed toward utilitarian aspects of the invention (a requirement described as utility or industrial applicability), while an industrial design protects ornamental aspects of useful articles. (A patent for a useful invention is sometimes referred to as a utility patent.) A specific item may have both forms of protection. For example, if a lamp works according to a new principle (such as introducing the use of the electric light bulb), that new technical advance might be protected by a (utility) patent. If the lamp also is of a particular design that gives it a certain "look" or fashion, that ornamental design could be protected by registering the industrial design.

While a patent application requires a detailed technical description of the subject matter of the application, and the scope of coverage is governed by the precise language of claims, an industrial design is principally disclosed by a picture - a drawing or photograph - that shows the appearance of the item. If claims are used, they are formal in nature - *I claim the design as shown*. Any functional feature of the object, or any part of its appearance that is dictated by its function, should not be protected as an industrial design.

Patents and Industrial Designs Requirements Compared	
Patents	**Industrial Designs**
New	**New**
Useful or industrially applicable	**Ornamental**
Inventive step, or not an obviousness change in invention	**Not an obvious change of design**

Industrial designs and copyright

Article 2 of the Berne Convention leaves the protection of works of applied art and industrial designs and models, as well as the conditions under which such items will be protected, to the provisions of national law. It requires only that works protected in the country of origin solely as designs and models must be entitled in another Berne country to such special protection as is granted in that country to designs and models. However, if no such

special protection is granted in that country, Berne Article 2 requires that such works be protected as artistic works, i.e., through copyright.

Whereas patent protection requires that an invention be *new*, that is, that it has not existed before, copyright generally only requires that the work be *original*, that is, not copied or derived from the work of another. TRIPS Article 25.1 requires WTO Members to provide protection for independently created industrial designs that are "new or original," but it leaves it to each WTO Member to decide which standard to apply, *i.e.*, novelty, as with patents, or originality, as with copyright.

The choice of whether industrial designs are protected by a special industrial designs law or by copyright makes a difference in the duration and form of protection available. Copyright offers a much longer term than industrial designs law, but the industrial designs law offers protection against the manufacture, sale, or importation of designs that are independently created.

Special provisions concerning textiles

TRIPS Article 25.2 requires WTO Members to ensure that the requirements for the protection of textile designs, particularly in regard to cost, examination and publication, do not unreasonably impair the ability to secure protection. WTO Members are free to meet this obligation through copyright or industrial designs law.

Industrial designs and protection of trade dress

In Egypt, industrial design registration is frequently used to protect trade dress. Trade dress can also be protected in some cases under design law, but where it is merely surface ornamentation - pictures or words on a package, for example - trade dress may be protected instead under the law of unfair competition or under copyright law.

An industrial design that relates to the shape of packaging may be protectable as a design, under trademark law, under the law of unfair competition, or by some or all of these forms of protection.

Where trade dress is protected by an industrial design, care should be taken to avoid registering a design that infringes a trademark or trade name. In cases of conflicts, the best approach would be to award all rights to the

party with the earliest priority in one of the forms of industrial property. Where registration is required, care should be taken to avoid registering as an industrial design an item that is dictated by function. For example, the shape or markings of a can might be registrable, but a pop-top opening is a functional feature that should be protected under patent law or as a utility model.

Rights accorded by an industrial design registration

TRIPS Article 26.1 specifies that the owner of a protected industrial design must have the right to prevent others not having the owner's consent from making, selling or importing articles bearing or embodying a design that is a copy, or substantially a copy, of the protected design, when such acts are undertaken for commercial purposes. TRIPS Article 26.1 permits limited exceptions to these rights if the exceptions do not unreasonably conflict with the normal exploitation of protected industrial designs and do not unreasonably prejudice the legitimate interests of the owner of the protected design, taking into account the legitimate interests of third parties. TRIPS Article 26.3 requires a minimum term of ten years.

Patent, utility model, or industrial design - selecting the proper form of protection

Patents, utility models, and industrial designs all relate to industrial innovations, but each offers different protection. Definitions provide guidance, but the subject is better illustrated by considering some examples.

> **Example 1:** A telephone. The mechanism that causes it to work was the subject of a patent application, because it relates solely to the useful characteristics of the item. Some features, such as the electrical circuit that allows the computer to redial or display a number, would also be the subject of a patent. The shape of the telephone, the layout of buttons or the placement of the screen on which the numbers are displayed, would be the subject of an industrial design registration, because they relate to the appearance of the item; i.e., a telephone that is rectangular performs the same function as a telephone that is oval, and a telephone that has a black case performs the same function as one with a clear case, but each gives a different appearance. If we attach a pencil and pad of paper to the case of the telephone, this would be a useful rather than a decorative feature, and therefore not an appropriate subject

for an industrial design registration, but since pencil and paper are frequently used in connection with a telephone, attaching it to the telephone would be an obvious improvement over the existing art, and the innovation - which might be novel and which would be very useful - would be unpatentable because it lacked inventive step. This innovation would therefore be an appropriate subject for a utility model registration.

Example 2: An item of food, such as a pastry. Both the recipe - a process for making a useful item - and the item itself - a composition of matter, or the product of a novel process - could be the subject of a patent, provided that it met other conditions of patentability, such as inventive step. This might exist if the pastry were made according to a process that gave it particular (unexpected) qualities, such as longer shelf life, a different texture, or a particular taste. In some case, that might also exist if the process gave the item a different and unexpected appearance; ordinarily, inventive step does not exist if the only new property is shape or surface ornamentation. However, the same pastry shaped or decorated to give a particular appearance might be the subject of a design patent, and the mold in which the pastry was baked might be the subject of a utility model.

It may not be known before filing whether an invention contains the required degree of innovation - novelty and inventive step - to be patentable, or whether it would be advisable for an applicant to apply to register the new items as an industrial design or utility model. It is therefore helpful to inventors if a country's industrial property laws permit an applicant to convert an application for a patent to an application for an industrial design or utility model registration, or to convert an application for an industrial design or utility model registration to an application for a patent, or to convert an application for a utility model registration to an application for an industrial design registration, in appropriate cases.

PLANT VARIETY PROTECTION

WTO Members must protect plant varieties either by patents or by an effective *sui generis* system or by a combination of such systems.[42] While the TRIPS Agreement contains detailed requirements for patents, copyright, and industrial designs, it contains no further standards as to what constitutes an effective system of protection of plant varieties.

The best source of such information, and the international norm for the protection of plant varieties, is the International Convention for the Protection of New Varieties of Plants (1991 Act), generally referred to by its French acronym *UPOV*.[43] UPOV is the leading international agreement in this area. It contains the most comprehensive set of conditions for the protection of plant varieties, specifies certain mandatory exceptions, and provides an international system of protection similar to that established for inventions and marks under the Paris Convention for the Protection of Industrial Property.

Plant variety protection (also referred to as plant breeders' rights) should provide the developer of a new variety of plant the exclusive right to produce, offer for sale, or market the propagating material of the variety.

Conditions for protection of plants

Plant variety protection is obtained in UPOV countries by filing an application with the plant variety protection office designated by national law. UPOV Article 10 provides that the breeder has the right to choose in which country to apply first and to file in other countries without waiting for authorization. Furthermore, the breeder's right cannot be refused or limited in duration on the ground that protection has not been applied for, or has expired or been refused, in any other State or intergovernmental organization.

Varieties are entitled to be protected if they are new, distinct, uniform, and stable. UPOV Article 5.2 provides that no other requirements for protection can be required, provided that the variety has an appropriate denomination

[42] TRIPS Article 27.3(b).
[43] Union pour la Protection des Obtentions Végétales.

(name) and the applicant complies with formalities and pays the required fees.

A variety is *new* if propagating or harvested material of the variety has not been sold or otherwise disposed of to others, by or with the consent of the breeder, for purposes of exploiting the variety

- domestically within one year before the date of filing a plant variety protection application *or*

- in foreign country, within four years from the date of filing, or for vines and trees, more than six years before filing *or*

- earlier if the country is extending protection to a new genus or species or is implementing later Act of UPOV.

A plant variety is *distinct* if it is clearly distinguishable from any other variety whose existence is a matter of common knowledge at the time the application for plant variety protection is filed. Filing an application for plant variety protection in any country makes that variety common knowledge, as does applying to enter in an official register of varieties another variety. In both cases, the pertinent varieties are considered to be part of the common knowledge only if the application actually leads to granting of plant variety protection or, in the case where the request was to enter a variety in an official register, if that variety is actually entered in the register.

A variety is considered *uniform* if it is sufficiently uniform in its relevant characteristics, taking into account the variation that may be expected from the particular features of its propagation. Absolute uniformity, such as would be expected from mass-produced items, is not required. The features that must be uniform are those associated with the variety.

Finally, a variety is considered *stable* if its relevant characteristics remain unchanged after repeated propagation or, in the case of a particular cycle of propagation, at the end of each such cycle.

Examination

UPOV Article 12 requires that each application be examined for compliance with the conditions for protection. In the course of

examination, the competent plant variety authority may grow the variety or carry out other necessary tests, cause the growing of the variety or the carrying out of other necessary tests, or take into account the results of growing tests or other trials which have already been carried out. For the purposes of examination, the authority may require the breeder to furnish all the necessary information, documents or material.

Right of priority

UPOV Article 12 provides a twelve-month right of priority, counted from the date of filing the first application but excluding the day of filing the subsequent application. No act done during the priority period, such as filing an application or publication or use of the variety that is the subject of the application, can constitute a ground for rejection of the application or give rise to a third-party right.

To take advantage of the priority right, the breeder must claim it in the subsequent application and may be required to furnish a copy of the original application documents, certified as a true copy by the office where it was filed, and samples or other evidence that both applications concern the same variety. The breeder must have at least three months to furnish the priority materials and two years after expiration of the priority period to furnish any information, document, or material needed for examination.

Protection of plant varieties

Plant variety protection gives the breeder the right to control the use of propagating material. UPOV Article 14 provides that the breeder's authorization is required for any of the following uses of propagating material of the protected variety:

- production or reproduction, also referred to as multiplication;
- conditioning for the purpose of propagation,
- offering for sale;
- selling or other marketing;
- exporting;
- importing; or
- stocking for any of these purposes.

The breeder may make his or her authorization subject to conditions and limitations. Subject to the exceptions and exhaustion provisions mentioned

below, the breeder's right extends to harvested material, including entire plants and parts of plants, obtained through unauthorized use of propagating material of the protected variety, unless the breeder has had reasonable opportunity to exercise his or her right in relation to that propagating material.

In limited cases, the protection of a new variety extends to other varieties: varieties that are essentially derived from the protected variety; those which are not clearly distinguishable from the protected variety; or those whose production requires repeated use of the protected variety. Without such a scope, the rights of the breeder would be of little importance.

A variety is essentially derived from another variety (the *initial variety*) when it is predominantly derived

- from the initial variety, or
- from a variety that is itself predominantly derived from the initial variety,

while retaining expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety; when it is clearly distinguishable from the initial variety; and except for the differences which result from the act of derivation, it conforms to the initial variety in the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety of propagating material of the protected variety.

Term

UPOV Article 19 requires that protection of plant varieties must be granted for a fixed period of time. This period must be not less than 20 years from the date protection is granted, or in the case of trees and vines, not less than 25 years from the grant of protection.

UPOV Article 13 requires provisional protection, *i.e.*, protection of the breeder's right during the period between the filing or the publication of the application for the grant of a breeder's right and the grant of that right. The breeder is entitled at least to equitable remuneration for any of the acts during that period that would require the breeder's authorization if done after the right is granted.

Compulsory exceptions

Breeders' rights are not absolute. UPOV requires certain compulsory exceptions, i.e., exceptions to protection that must be provided for in the laws of UPOV members. UPOV Article 15 requires that the plant breeder's right must not extend to acts done privately and for non-commercial purposes; acts done for experimental purposes; and acts done for the purpose of breeding other varieties. These exceptions do not exist for patented plants.

Optional exception

UPOV Article 15.2 also permits members to adopt an exception permitting a farmer to use the products of his or her own harvest for propagating purposes on the farmer's own holdings. This exception must be exercised within reasonable limits, and subject to safeguarding the legitimate interests of the breeder. It is further limited to the use of the product of the farmer's own harvest obtained by planting on the farmer's own holdings. The exception is applicable to the protected variety or a variety that is essentially derived from or not distinguishable from the protected variety.

Exhaustion

The UPOV Convention provides for an exhaustion of the breeder's right. Under Article 16, this exhaustion doctrine applies to propagating material of any kind; harvested material, including entire plants and parts of plants; and any product made directly from the harvested material. The breeder's right does not extend to any acts concerning any of these materials if it has been sold or otherwise marketed by the breeder, or with the breeder's consent, within the territory of a UPOV member, except in two situations:

- if the acts involve further propagation of the variety in question, or
- if the acts involve an export of material of the variety, which enables the propagation of the variety, into a country which does not protect varieties of the plant genus or species to which the variety belongs, except where the exported material is for final consumption purposes.

Restrictions on the breeder's right

Except as specifically permitted, UPOV Article 17 prohibits any further restrictions on the breeder's right except for reasons of public interest. If

any such restriction has the effect of authorizing another person to perform any of the acts requiring the breeder's authorization, the government must take all measures necessary to assure that the breeder receives equitable remuneration.

Plant variety protection compared with patent protection

The grant of plant variety protection is confirmed by issuing a document. In some countries, this is described as a certificate; in others, as a patent for the plant variety. Whether or not it is called a patent, plant variety protection is available for all species and genera if they are new, distinct, uniform and stable. This should not be confused with a patent for an invention, available for inventions that are new, useful, and contain an inventive step. Patents for inventions may be available for plants if they are not excluded by national law. It should also not be confused with special plant patents available in some countries, such as the Republic of Korea and the United States, for asexually reproduced plants.

Patents must be available for a minimum term of 20 years from filing. Plant variety protection offers a minimum term of 20 years from grant, or 25 years in the case of trees and vines.

Patents offer the owner the exclusive right to make, use, sell, offer for sale, or import for those purposes a patented product, and the right to use a patented process and to make, use, sell, offer for sale, or import for those purposes the direct product of the patented process. Plant variety protection offers the owner the exclusive right to produce or reproduce propagating material or condition it for the purpose of propagation, and the right to offer for sale, sell, or otherwise market, export, import, or stock for those purposes the propagating material. Exceptions and limitations on the rights of the owner are much broader for plant varieties than for patents.

Protection of agricultural innovations

Technological advances in agriculture are not limited to plants. The following table suggests the likeliest form of protection for most technological advances in the field of agriculture.

Types of Technological Development	Form of protection that may apply
Plants and animals[44] developed through breeding programs	Breeders' rights
Methods of cultivation	Patent
Agricultural equipment	Patent
Newly discovered genera and species	Breeders' rights
Agricultural chemicals	Patent
Genetically engineered plants and animals	Patent

[44] Breeders' rights for animals, other than microbiological organisms, are available under the domestic laws of a few countries.

SPECIAL PROVISIONS RELATING TO PHARMACEUTICAL AND AGRICULTURAL CHEMICAL PRODUCTS

The following table summarizes TRIPS Agreement provisions on pharmaceutical and agricultural chemical products:

TRIPS Requirement	Brief explanation
Article 27 – Full subject matter protection under patent law **Article 65.4** – Transition period	**Article 27** requires that patents be available in all fields of technology. **Article 65.4** provides a transition period for developing countries to implement patent protection for products that were not patentable subject matter on the date of general application of the TRIPS Agreement.
Articles 65.5, 70.8, 70.9 – Requirements during the transition period	**Article 65.5** prohibits changes that provide a lesser degree of TRIPS consistency. **Article 70.8** requires a Member not providing full subject matter protection during the transition to establish a means to receive applications for pharmaceutical or agricultural chemical products ("mailbox") and accord certain benefits from 1 January 1995 until protection is provided. **Article 70.9** requires Members to provide a period of exclusive marketing rights for products that are the subject of mailbox applications and meet certain conditions.
Article 39.3 – Protection of test and other data	**Article 39.3** requires protection of test and other data submitted as a condition of obtaining marketing approval for pharmaceutical products or agricultural chemical products. Members are required to protect such data against disclosure and unfair commercial use.

Subject matter protection

The TRIPS Agreement applies to WTO Members – generally countries. It requires all Members to offer patent protection for inventions in all fields of technology. A number of Members, including Egypt, have (or had) patent laws that exclude patentability for certain types of inventions. In Egypt,

this exclusion refers to chemical products that may be used as foods or pharmaceuticals. TRIPS Article 66.5 permits developing country Members to defer implementation of full subject matter protection until January 1, 2005, if those Members did not protect certain products on 1 January 2000. TRIPS Article 66.1 permits least-developed country Members to defer implementation of most provisions for a period of ten years, i.e., until 1 January 2005. On June 22, 2002, the TRIPS Council, the WTO council responsible for intellectual property, approved an extension until 1 January 2016 for least-developed countries to provide protection for pharmaceutical products and a waiver of the exclusive marketing rights provisions under TRIPS Article 70.9 during that same period.

Egypt's patent law has not contained an exclusion for "agricultural chemical products." Under TRIPS Article 65.5, Members are not permitted to adopt provisions that result in a lesser degree of consistency with TRIPS, so it is not possible for Egypt (or any other Member) to broaden the exceptions in its patent law to correspond to those for which the transition period is allowed, *e.g.*, Egypt could not cease offering patents for agricultural chemical products until the end of the transition period.

Requirements resulting from deferring implementation under the transition period

TRIPS Article 70 sets a number of requirements for Members that do not make available as of the date of entry into force of the WTO Agreement patent protection for pharmaceutical and agricultural chemical products commensurate with obligations under Article 27. Any Member that elects to defer implementation of patent protection for agricultural chemical or pharmaceutical products under the transition period must take two steps: 1) establish a *mailbox* to allow the filing of a patent application covering pharmaceutical and agricultural chemical products for which patent protection is not available because of the Member's election to defer implementation under the transition period (Article 70.8), and 2) offer exclusive marketing rights for products that are covered in mailbox applications and meet certain other requirements (Article 70.9).

Mailbox

Each WTO Member that does not offer patent protection for pharmaceutical and agricultural chemical products from the date of entry into force of the WTO Agreement must establish a means by which patent applications can

be filed for such inventions. This system is sometimes referred to as a *mailbox*. Such applications are not subject to being rejected on the ground that they claim the subject matter for which protection is not available during the transition period. Instead, the Member may defer issuing the patent until its law provides for patent protection for the subject matter claimed, and the invention must receive patent protection from the date the patent issues until the remainder of its term, determined consistently with Article 33 of the TRIPS Agreement.

Applications deposited in the mailbox – that is, filed with the Patent Office – must receive the benefit of the filing date of the date the application is deposited, or an earlier priority date if applicable. In determining patentability (*e.g.*, through examination), the criteria for patentability must be applied to those applications as if those criteria were being applied on that filing date or earlier priority date if priority is applicable and claimed. Receiving an early filing date is important in patent practice because of the novelty requirement, under which later-filed applications are examined against earlier-filed applications and also against what is known.

Certain actions defined under national law – typically selling the product, describing it in a patent or printed publication, or other steps that would cause it to be known – destroy novelty and therefore patentability. Under the *mailbox* provision, a patent application covering an invention of a pharmaceutical product could be deposited with the Patent Office, and the application would be examined on the basis of the situation as it existed at the time of filing. This avoids the two undesirable consequences: that the application would be rejected as claiming unpatentable subject matter (*i.e.*, claiming pharmaceutical or agricultural chemical products), or that the applicant would be unable to continue to develop and market the invention until the end of the transition period without risking loss of patent rights.

Exclusive marketing rights

The other requirement for taking the transition period is that Members must establish a system for offering exclusive marketing rights for up to five years for products covered by mailbox applications. However, the period of exclusive marketing rights could expire sooner, on the date when either 1) a patent is granted (in which case the patent owner would rely on his or her patent instead of the exclusive marketing rights) or 2) the patent application is rejected.

Under TRIPS Article 70.9, in order to qualify for exclusive marketing rights, three conditions must be met. Subsequent to the entry into force of the WTO Agreement

1) a patent application covering pharmaceutical products or agricultural chemical products for use as foods must have been filed in the WTO Member (*e.g.*, Egypt) where exclusive marketing rights are to be obtained;

2) a patent must have been granted for that product in another WTO Member; and

3) marketing approval must have been obtained in that same WTO Member where the patent was obtained.

In addition, Egypt also requires that an application must have been filed requesting marketing approval in Egypt.

Implementation of this program is accomplished through the Ministry of Health and Population, the Ministry of Higher Education and State for Scientific Research, and the Office of the Prime Minister. When all conditions are met, the Ministry of Health and Population should refuse marketing approval for the product to any other party than the owner of the mailbox patent application, since a party that is entitled to exclusive marketing rights clearly does not have exclusive rights if another party has permission to market the same product.

Exclusive marketing rights must be implemented during any period when a Member exercises the right to defer implementation of full subject matter patent protection for pharmaceutical and agricultural chemical products. If a Member implements patent protection sooner than the end of that transition period, the obligation to offer exclusive marketing rights would terminate as to new applications, and the term of exclusive marketing rights for existing mailbox applications would end when a patent is issued or the patent application rejected.

While the patent system offers exclusive rights only to inventions that meet certain requirements, including novelty, the system of exclusive marketing rights does not include any such provisions. That is, there is no basis on which a WTO Member may refuse exclusive marketing rights for any invention that meets the TRIPS requirements.

This raises two policy issues. One is the fact that exclusive marketing rights may be required even if marketing approval has already been granted to another party. In such a case, the Member may be required to terminate marketing approval that has been granted to a party other than the owner of the mailbox patent application.

The other policy consideration is that unexamined mailbox applications may refer to subject matter that would not be granted a patent in the Member for reasons other than being excluded subject matter, *e.g.*, for lack of novelty. This risk is somewhat minimized by the fact that in order to obtain exclusive marketing rights, the applicant must have received a patent in another WTO Member and also marketing approval in that Member. However, not all WTO Members examine patent applications, so there is a risk of offering exclusive marketing rights to a product that would not be entitled to them under a TRIPS-consistent patent law.

This risk is eliminated when the Member adopts full subject matter patent protection, which may be sooner than the end of the transition period. The risk can be minimized if the Patent Office examines applications that are in the mailbox. In the latter case, the Patent Office could reject applications that failed to meet other standards of patentability, such as novelty, inventive step, or industrial applicability, even though the Office would not be able to issue the application as a patent until permitted under national law or the end of the transition period, whichever is sooner.

These issues highlight the fact that exclusive marketing rights are intended only as a temporary measure to compensate for the lack of full subject matter patent protection.

Data exclusivity

All WTO Members are required to offer protection for data that is submitted as a condition for obtaining marketing approval for pharmaceutical or agricultural chemical products that use a new chemical entity. Under TRIPS Article 39.3, provisions requiring data exclusivity apply *only* to pharmaceutical and agricultural chemical products *if*

1) The products use a new chemical entity,
2) The Government requires the submission of test data or other data as a condition for marketing approval, and
3) The data required a considerable effort to originate.

If the provision applies, the Government *must*

1) protect the data against unfair commercial use, *and*
2) protect the data against disclosure except

    a) where necessary to protect the public *or*
    b) unless steps are taken to ensure that the data are protected against unfair commercial use.

Egypt was obligated to implement this provision by January 1, 2000.[45]

The term *new chemical entity* is not defined in the TRIPS Agreement. It is a term of art drawn from American regulatory practice, where it refers to a product containing an ingredient that has not previously been approved for marketing by the U.S. Food and Drug Administration. Thus, "pharmaceutical or of agricultural chemical products which utilise new chemical entities" (TRIPS 39.3) are those products which include a chemical compound or composition that has not previously been approved for marketing in that Member.

Since the phrase *new chemical entity* is a term of art, it is inappropriate to attempt to construe its meaning one word at a time. In its proper context, *new* means *new to the regulatory process*. Data are protected against disclosure or unfair commercial use in order to encourage adequate testing before a product is introduced to the public. In order to accomplish the goal of protecting the public, regulatory officials need sufficient data to make a determination about the effectiveness and safety of a product for its intended use. A product that is safe and effective when used in one manner may be dangerous or ineffective when used for a different purpose or under different conditions. If a new application of a product requires additional regulatory review – and additional data – that data should be protected.

The requirement to protect data has nothing to do with patentability, and the term *new chemical entity* should not be confused with the novelty requirements of the patent system. To be patentable, a product must be *new* or *novel* in the sense that it is not known by others, since the public gains no benefit from according exclusive rights to products that are already known. By contrast, the public stands to gain access to products that address different needs if those products are introduced to the regulatory process –

[45] *See* TRIPS Article 65(2).

even if the products themselves are not *new* in the patent sense. Consequently, a *new chemical entity* could even be a naturally occurring product submitted for marketing approval, so long as the ingredients of that product are new to the regulatory process, *i.e*., have not previously been approved for marketing.

It is equally clear that the product must only be new to the regulatory process in the particular Member that is conducting the regulatory review – *i.e*., in Egypt, not worldwide – since restricting the term to mean *new anywhere in the world* would mean that data would only be protected in the first country where an application for marketing approval was made. An attempt to impose a more stringent interpretation – absolute novelty – would appear to be an inappropriate confusion with principles of patent law.

As a policy matter, the contrary position would inhibit the introduction of new products into any country whose government took such a position, since companies would not want to risk their valuable data in a market where they could not protect it. Likewise, *new* must mean *not previously approved for the particular use*, as opposed to *not previously submitted* in order to be consistent with the spirit of the provision and the policy interests it serves. Regulatory agencies need the ability to request additional data in order to satisfy their responsibilities to the public. Taking the contrary position for the sake of argument, if a government limited the protection of data to only those instances where a product was submitted to the regulatory process for the first time anywhere, the agency would have no ability to protect additional data and would therefore find it difficult to obtain such data on request.

One aspect of data exclusivity is protecting the data against disclosure, except for those narrow points that must be revealed except where necessary to protect the public. It is important make a distinction between *data* and other information. A member of the public or physician may need to know, for example, indications and contraindicatons and side effects of a particular product, but the data used to develop those conclusions and recommendations is of interest in most cases to only a few persons who are involved in reviewing the data in order to determine whether it is safe and effective.

Applications are often circulated to a number of persons, for administrative handling or scientific review. Each person with access to the data should be

subject to a prohibition against disclosure of the data to others or making personal use of such data. Other safeguards should include physical protection of the data, for example, by placing it in a secure location and limiting access to those who are authorized to have access to such data.

The requirement to protect against disclosure is indefinite, *i.e.*, the TRIPS Agreement specifies no definite term after which the data may be disclosed. The other aspect of protection is against *unfair commercial use*. It is generally accepted that the principal unfair commercial use of data occurs when one party uses the data of another party in order to obtain a registration or marketing approval. Such use is unfair because it allows the second party to take advantage of the investment of labor and resources of another. While the amount of money required to develop a new pharmaceutical product is large, it is dwarfed, in most cases, by the expense of testing that new product.

Countries want to encourage adequate testing, which is expensive. Countries also want to take advantage of the latest developments in pharmaceutical products by having new products introduced into the domestic market as quickly as possible after testing is completed. This interest is not supported if the developer of a new product is not guaranteed a reasonable period in which no other party can rely on that data to put its product on the market.

In Egypt, a party that wants to market a pharmaceutical product can ordinarily obtain approval by submitting test data showing that the product is equivalent to another product that is already approved and, rather than showing safety and efficacy (which requires a large amount of data and significant expense to produce such data), the second party can merely refer to the safety and efficacy data that has already been submitted by the first party, who developed it at considerable expense. As a consequence, the developer of the data is likely to withhold a new product from the market in Egypt until it has recovered a significant part of the expense of development.

Egypt is obligated under TRIPS to avoid issuing marketing approvals for products that are new to the market in Egypt on the basis of data submitted by another party. The period during which data is protected against unfair commercial use varies considerably. The European standard is 10 years.

COPYRIGHT AND RELATED RIGHTS

Copyright and related rights form a major branch of intellectual property. *Copyright* protects the right of an author to prevent the unauthorized copying or modification of a work of authorship. Copyright protects works of authorship, such as literary works, dramatic works, musical works, audiovisual works, or works of visual art. Literary works are often embodied in familiar forms such as books, poems, or computer programs. Dramatic works may be embodied in plays. Musical works may be embodied in written musical notation or musical recording. Audiovisual works may be embodied in forms such as movies or videos. Works of visual art may be embodied in familiar forms such as sculptures, paintings, architectural works, technical drawings, maps, or photographs.

Closely related to copyright is the area of *related rights* or *neighboring rights*, which protect the rights of performers, producers of phonograms (sound recordings) and broadcasting organizations to prevent the unauthorized recording or broadcast of performances, and the unauthorized copying of such recordings.

Not Protected Under Copyright

- Ideas
- Procedures
- Methods of operation
- Mathematical concepts

-- TRIPS Article 9.2

In addition to these forms of intellectual property, some forms of intellectual property are protected in some countries under copyright law and in other countries through industrial designs or a *sui generis* system of protection.

Subject matter protected by copyright

Copyright extends to any work of authorship. Its coverage is very broad, as shown on the following charts. Attorneys must learn to think expansively about copyright and how clients can use copyright as a tool to strengthen their business interests.

The TRIPS Agreement permits Members to provide for limited exceptions to copyright protection under their national laws, provided that these exceptions do not unreasonably conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the copyright owner. These conditions must be met even if the exceptions are permitted under the Berne Convention for the Protection of Literary and

Artistic Works. An exception that is commonly taken is to except copyright protection for official government works, such as copies of statutes or judicial opinions.

Requirements for copyright protection

A work of authorship is protected in accordance with the national law of the country where protection is claimed. Under the Berne Convention, the enjoyment and exercise of rights cannot be made subject to any formality nor made to depend on protection in the country of origin of the work. Protection can be conditioned on fixation of the work in a tangible medium of expression, for example, written on paper, stored on disk, painted on canvas, or recorded on tape. This condition is a common feature of national laws. In either event, a work is automatically protected without the necessity of any procedures, such as registration or marking. This is very different from requirements for protection of inventions, marks, industrial designs, or plant varieties, which require the owner to submit an application and may be subject to examination.

Works Protected by Copyright

Although copyright is commonly associated with cultural works, attorneys must think expansively about the many types of work to which copyright applies. The following categories, drawn from American practice, are helpful. (Quoted from www.loc.gov/copyright/.)

Musical works include both original compositions and original arrangements or other new versions of earlier compositions to which new copyrightable authorship has been added. Copyright of a musical work can cover music or both words and music.

Sound recordings are works that result from the fixation of a series of musical, spoken, or other sounds. Common examples include recordings of music, drama, or lectures.

Dramatic works are works that are intended to be performed. Dramatic works usually include spoken text, plot, and directions for action. Examples of dramatic works include, but are not limited to, the following:

Choreography	Plays
Pantomimes	Scripts and treatments prepared for cinema, radio, or television

These works may be with or without music. Choreography (the composition and arrangement of dance movements and patterns usually intended to be accompanied by music) and pantomime (the art of imitating or acting out situations, characters, or other events) need not tell a story or be presented before an audience, but to be protected by copyright, each work must be fixed in a tangible medium of expression from which the work can be performed.

Audiovisual works are works that consist of a series of related images together with accompanying sounds. The works are embodied in material objects, such as films, tapes, CDs, or videodisks, and are shown by use of machines or devices. Examples include, but are not limited to, the following:

Motion pictures	Video recordings
Video games	

Works Protected by Copyright

Non-dramatic literary works include, but are not limited to, the following:

- Articles and essays
- Books and stories (fiction, nonfiction)
- Bound or loose-leaf volumes, pamphlets, brochures and single pages containing text
- Computer programs
- Poetry
- Speeches
- Catalogues
- Compilations
- Collective works and contributions to collective works
- Directories
- Dissertations, theses, reports

There is no specific requirement as to the printing, binding, format, paper size or quality of unpublished manuscript material.

Works of visual art are pictorial, graphic, or sculptural works, including 2-dimensional and 3-dimensional works of fine, graphic, and applied art.

Examples of works of visual art include, but are not limited to, the following:

- Advertisements, commercial prints, labels
- Architectural works and models
- Artificial flowers and plants
- Artwork applied to clothing or to other useful articles
- Bumper stickers, decals, stickers
- Cartographic works, such as maps, globes, relief models
- Cartoons, comic strips
- Collages
- Dolls, toys
- Drawings, paintings, murals
- Enamel works
- Fabric, floor, and wall covering designs
- Games, puzzles
- Greeting cards, postcards, stationery
- Holograms, computer and laser artwork
- Jewelry designs

Works Protected by Copyright

More examples of works of visual art:

Maps, globes, charts, technical drawings, and diagrams
Models
Mosaics
Needlework and craft kits
Original prints, such as engravings, etchings, serigraphs, silk screen prints, woodblock prints
Patterns for sewing, knitting, crochet, needlework
Photographs, photomontages
Prints and art reproductions
Posters
Record jacket artwork or photography
Relief and intaglio prints
Reproductions, such as lithographs, collotypes
Sculpture, such as carvings, ceramics, figurines, maquettes, molds, relief sculptures
Stained glass designs
Stencils, cut-outs
Technical drawings, architectural drawings or plans, blue-prints, diagrams, mechanical drawings
Weaving designs, lace designs, tapestries

Rights protected under copyright

Copyright protects the rights of the author in a work of authorship. The basic protection of copyright law is the right of the author to prevent others from copying the work.

Copying consists not only of reproducing an identical copy of a work but also includes other forms of copying, such as making a work that is based on the original. In addition, copyright protects certain other rights of the author. Copyright does not allow the owner to prohibit others from producing original works, that is, works that are not copies, even if they are similar to the works of the author. Copyright protects the form of expression of the work, not ideas, procedures, methods of operation or mathematical concepts that might be described in a work of authorship or that might form the basis for the work.

Economic rights

Economic rights are the principal focus of copyright law. Copyright gives the owner of the work the right to exclude others from doing certain acts without authorization. These acts generally include reproducing, distributing, or selling copies of the work, publicly performing a dramatic work or displaying a work of visual arts, broadcasting the work, or preparing derivative works based on the work. Derivative works include translations, adaptations, arrangements of music, and other alterations of a literary or artistic work, for example, a motion picture based on a literary work. Berne Article 2.3 requires that derivative works must be protected as originals without prejudice to the original work. TRIPS Members are required to include among the author's rights the exclusive right to authorize or prohibit the rental to the public of at least cinematographic works and computer programs.

Moral rights

Copyright protects both economic and non-economic rights of authors. Although the principal emphasis of copyright law is on economic rights, copyright law also recognizes the rights of authors to certain non-economic rights known as *droit morale*, or moral rights.

Berne Convention Article 6*bis* requires *all* Berne countries to provide for moral rights. The author must have the right to claim authorship of the work and to object to any distortion, mutilation or other modification of the work, or any other derogatory action in relation to the work, that would be prejudicial to the author's honor or reputation.

Moral rights include
- the right to be known as the author and
- the right to object to any
  - distortion,
  - mutilation, or
  - other modification of the work

that would be prejudicial to the author's honor or reputation.

Moral rights must be recognized independently of the author's economic rights and must continue even after transfer of the economic rights. After the death of the author, moral rights must be maintained at least until the expiry of the economic rights *i.e.,* the life of the author plus fifty years, or longer if provided under domestic law. Some countries have incorporated in their laws a much longer period for moral rights. The Berne Convention permits an exception for countries

whose legislation, at the moment of their ratification of or accession to the Berne Convention, did not provide for protection of all the moral rights specified after the death of the author. In such cases, the country may provide that some of those rights may cease to be maintained after the author's death.

Application of moral rights

The concept of moral rights can have significant practical effect. After the expiration of economic rights, the author ordinarily no longer has the right to object to the reproduction or sale of the work or to the making of a derivative work based on the original. If, however, that reproduction, sale, or derivative work would be prejudicial to the author's honor or reputation, the moral right may create an independent basis for the author to object. In the following examples, consider whether the author would have the right to object to the proposed use on the grounds of moral rights:

> **Example 1:** A popular character from children's literature is used in a pornographic film. The original author no longer owns copyright in the work featuring the character.
>
> **Example 2.** A religious leader publishes an article which a publisher proposes to reprint in a magazine where it will be surrounded by material that followers of the religion would consider objectionable.

For works of visual art, an author may object to the destruction or placement of a work, even though the author has transferred ownership to another party. An author might object, for example, if a work of art designed for use in one setting were purchased with the intention of locating it in a different setting where it would be held up to ridicule. A moral rights claim might also be made on the basis of style – placing a modern sculpture in front of a traditional building, or *vice versa*.

Moral rights must be exercisable by the persons or institutions authorized to exercise such rights under national law in the country where protection is claimed. If the author is deceased, a claim of moral rights could be made by someone speaking on the author's behalf.

Determining authorship

An *author* is the creator of the original expression in a work. Determination of authorship is a question of fact. A person should not be listed as an author merely as a courtesy or honor, for example, to gain credibility for the work by association with the name of an expert in the field or to show appreciation to a supervisor. Likewise, it is improper to fail to include as an author a person who contributed to the creation of the work.

Determination of authorship has important legal implications. A person cannot claim copyright to another's work, no matter how much he or she changes it, without the owner's consent. An author whose name is omitted has a cause of action to remedy that omission. Incorrect attribution of authorship compromises the ability to exploit a work. For technical documents, the relatively common practice of listing authors as a matter of courtesy can affect the patentability of inventions and raise questions about ownership of patent rights.

The author of a work is the owner of copyright in that work unless ownership is transferred to another person or entity. This can happen if the author assigns the work, for example, to a publisher, or pursuant to the terms of a contract. Depending on national law, this may occur automatically in certain employment situations. Under U.S. law, for example, the employer or commissioning party is considered to be the author in certain narrowly defined situations.

In some cases, more than one person may contribute to the creation of a work. Such persons are joint authors, and each owns copyright in the work. Berne Article 7*bis* provides that in the case of a work of joint authorship, where the term of protection is measured from the death of the author, the term is to be calculated from the death of the last surviving author.

The nature and extent of the ability of each joint author to exploit the work independently of the other(s) depends on national law. Since the ability to convey an exclusive right generally carries greater economic benefit than the ability to convey a mere nonexclusive license, the best practice is to exploit the work as though only a single person owned copyright – either by assignment to a common owner or by agreement among the joint authors to act only by agreement. Otherwise, the advantages of owning exclusive rights may be lost.

Ordinarily, the author is the person who first records the work in a tangible medium of expression – the person who writes the book, makes the photograph, paints the picture, etc. Evidence of authorship might therefore include documents showing that a person engaged in that process – earlier drafts of the book, other exposures on the roll or receipts for developing the film, preliminary sketches of the painting. Other evidence may include testimony by persons who observed the author at work, as well as any other evidence that would be probative of the question of authorship.

Recording a work is not absolute evidence of authorship, since the author is not necessarily the same person who prepares the physical object in which the work is embodied. For example, an author may dictate a book to a secretary or scribe, who faithfully records the author's words but is not an author. On the other hand, a person who records the words may participate in determining their content or style, by suggesting topics to cover and/or suggesting phrases, descriptions, or examples, and in that case, such person may be an author.

In determining authorship, look to the source of the original expression. If the person who prepares the physical object in which the work is embodied takes detailed direction from another person, the person giving detailed directions is the author and the person preparing the physical object is not a joint author, even if the person who prepares the physical object brings to that process a degree of technical skill.

Joint authorship

Joint authorship raises additional issues. It is not necessary that joint authors have made the same degree of creative contribution, but to be joint authors, each must have made some original contribution. Likewise, it is not necessary that joint authors work together in a physical sense – being present at the same place and time – in order to establish joint authorship, but there must be some degree of cooperation between their contributions, and those contributions must have been made to the same work. A single person may compose both words and music, but if two or more persons are involved, an additional determination is required.

> **Example 1:** Person A played piano and Person B recorded lyrics, but the composition was carried out interactively, with both Person A and Person B contributing words and both Person A and Person

B contributing to the music. Persons A and B are joint authors of the song, including words and music.

Example 2: Person A played piano and composed the tune, and Person B wrote lyrics to match the tune. The composition was not carried out interactively, as each did his or her own part. Person A is the sole author of the music, and Person B is the sole author of the words.

Example 3: Person A worked from his studio in Cairo, Person B wrote lyrics from her home in Shabin el Kom, and they corresponded by mail. Notwithstanding that they did not work in the same place, the composition was carried out interactively, with Person A suggesting changes in the words, and Person B suggesting changes in the music. Persons A and B are joint authors of the song, including both words and music.

In determining whether Persons A and B are joint authors in Example 2 above, it is useful to consider whether the nature of the contributions can be separated without destroying the form of expression. If the contributions form a unified work, with the parts cooperating, the situation suggests joint authorship of the entire work. If the contributions can be separated and each can stand independently, it suggests that the contributors are not necessarily joint authors. However, the nature of the collaboration is a more important consideration, and situations exist where it is not possible to separate out the work of one person from a general collaboration.

Term

The term of copyright protection depends on national law. Berne Convention Article 7 specifies a minimum term of the life of the author plus fifty years after the author's death. For cinematographic works, Berne countries may provide a term of protection that should not expire before fifty years after the work has been made available to the public with the consent of the author, or, if the work is not made available to the public with the consent of the author within fifty years from the making of the cinematographic work, then fifty years after the making of the work.

For anonymous or pseudonymous works, the Berne Convention requires a minimum term of protection of fifty years after the work has been lawfully made available to the public. However, when the pseudonym adopted by

the author leaves no doubt as to his or her identity, or when the author of an anonymous or pseudonymous work discloses his or her identity during the fifty-year period after the work has been lawfully made available to the public, the applicable term is the same as in cases where the author of the work was known.

The Berne Convention does not require protection of anonymous or pseudonymous works when it is reasonable to presume that their author has been dead for fifty years. Berne permits member countries to determine the term of protection of photographic works and of works of applied art in so far as they are protected as artistic works, provided that the term is at least twenty-five years from the making of such a work.

The term of protection subsequent to the death of the author and the other terms provided for cinematographic works, anonymous or pseudonymous works, photographic works, and works of applied art must always be deemed to begin on the first of January of the year following the death or other event mentioned. The TRIPS Agreement provides for a term of not less than fifty years after the last day of the year in which the death or other event occurred. In cases of joint authorship, Berne Article 7*bis* provides that the term is measured from the death of the last surviving author.

It is permitted to grant a term of protection in excess of the terms mentioned. For WTO Members, the principles of national treatment and most favored nation treatment require that the copyright term be the same as, and no less favorable than, that accorded to any other Member. Unless a Berne country's domestic legislation provides otherwise, the term of protection it provides to foreign works should not exceed the term fixed in the country of origin if the country of origin is a member of Berne but not of the WTO.

Rights conferred by copyright

Rights conferred by copyright are determined by national law. However, the Berne Convention specifies minimum levels of protection that must be provided. These requirements are shown in the accompanying tables.

Rights of the Author			
Right	**Type of Work**	**Scope of Right**	**Source**
Reproduction	**literary and artistic works**	Authors have exclusive right to authorize the reproduction of their works, in any manner or form, including sound or visual recording.	Berne Article 9
Adaptation	**literary and artistic works**	Authors have exclusive right to authorize adaptations, arrangements and other alterations of their works.	Berne Article 12
Translation	**literary and artistic works**	Authors have exclusive right to make and authorize the translation of their works.	Berne Article 8
Public recitation	**literary works**	Authors have exclusive right to authorize the public recitation of their works, by any means or process, and any communication to the public of the recitation, including recitation of translations.	Berne Article 11*ter*
Public performance	**dramatic, dramatico-musical and musical works**	Authors have exclusive right to authorize the public performance of their works, by any means or process, and any communication to the public of the performance of their works.	Berne Article 11

Rights of the Author			
Right	**Type of Work**	**Scope of Right**	**Source**
Broadcasting	**literary and artistic works**	Authors have exclusive right to authorize the broadcasting of their works or the communication thereof to the public by any other means of wireless diffusion of signs, sounds or images, including rebroadcasting and public communication of a broadcast.	Berne Article 11*bis*
Cinematic adaptation, reproduction, distribution, and public performance	**literary and artistic works**	Authors have exclusive right to authorize the cinematographic adaptation and reproduction of their works; the distribution, public performance and communication to the public by wire, of the works adapted or reproduced; and adaptation into any other artistic form of a cinematographic production derived from literary or artistic works.	Berne Article 14
Droit de suite	**original works of art and original manuscripts of writers and composers**	Authors have exclusive right to authorize the inalienable right to an interest in any sale of the work subsequent to the first transfer by the author of the work; right may be exercised by authorized person after death of author; subject to national law.	Berne Article 14*ter*

Copyright infringement

Any copying without permission of the author is *infringement* unless it falls into a legal exception or is otherwise excused. Copyright infringement involves two basic types of cases. The first, and most straightforward, is a situation where a person uses all or part of the work of another person without first obtaining permission. The second occurs when a person appropriates a work and adapts it in some manner without first obtaining permission.

In determining whether copyright infringement exists, in both types of cases, the courts will look first at whether the work is subject to copyright, whether the alleged infringer has had access to the original work, and whether there is substantial similarity between the works. These three elements constitute a *prima facie* case of infringement. The existence of a license or a claim that the use was excused constitute a defense. The plaintiff normally has the burden of showing the elements of a *prima facie* case and the defendant the burden of showing the elements of a defense.

Establishing a *prima facie* case

The plaintiff must offer evidence of ownership of a valid copyright in the work, evidence that the defendant had access to the work, and evidence that there are substantial similarities between the copyrighted work and the alleged copy.

In many cases, a showing of copyright ownership should be the easiest of the elements of a *prima facie* case. Since copyright inheres from the time that a work is fixed in a tangible medium, the plaintiff should establish that the work in question was made either by the person claiming to be the copyright owner, or by a person claiming rights from that person, within a period such that the term would not yet have expired. Since Egypt is a member of the Berne Convention, no formalities can be required to obtain copyright, so no further formalities – such as filing an application – are necessary to establish that a valid copyright exists.

If the plaintiff is the author, the complaint should recite that the work is the original work of the plaintiff and that the plaintiff owns copyright in the work and offer enough evidence of authorship to establish a *prima facie* showing under Egyptian law. If the plaintiff is not the originator of the work, it will be necessary to establish ownership by producing an

assignment or other agreement that gives the plaintiff the right to bring a suit for infringement.

The plaintiff also must show that the defendant had access to the work and that there are substantial similarities. Substantial similarity is shown by comparing the works. The arrangement of the parts of the work, the use of common language or settings, and the replication of errors are factors to be considered in determining whether copying has occurred. The replication of errors in spelling or typography, or of other types of errors, is strong evidence of copying.

The more substantial the amount of copying, the easier it will be to demonstrate both that copying occurred and that it was an intentional act. In cases where the copying alleged is reproducing portions of another work, the task of identifying copied material is tedious but straightforward. In some cases, a showing of substantial similarity may raise a presumption that the alleged infringer had access to the work. This principally applies when the copying is exact or the amount of copied material is large in relation to the whole.

Copying may also occur without a slavish reproduction of all or portions of the work. If copying is more subtle, the plaintiff may need to offer an analysis of such factors as plot and characterization, or the look and feel of the work.

A second type of copyright infringement involves the adaptation right. In this case, the issues will revolve around whether the allegedly infringing work relied on the work adapted. Common situations involve the production of a movie or play from a book, or a movie from a play, or use of a song in a video. Unauthorized translation is another common example. It is also possible for a three-dimensional work to infringe a two-dimensional work or the reverse – for example, a sculpture that copies a photograph, a dress made from a dress pattern, a building built from architectural plans, or a toy that reproduces a cartoon figure.

Cases of copyright piracy may not require particular expertise to determine because of the identical, or nearly identical, nature of copying. In the case of computer programs, the copying may not be easy for a layperson to discern, expert assistance may be useful.

Defenses to copyright infringement

The principal defenses to a charge of copying are the following:

- No copying occurred, as the work is the result of original effort.

A defendant who relies on this defense should be prepared to demonstrate that the work was made independently of the work alleged to be infringed. Proof in such cases will be basically the same as that offered by the plaintiff in making a *prima facie* case. However, the more substantial the amount of material that exists in common between the two works, the greater the burden that defendant should be prepared to offer to demonstrate that the allegedly infringing work was in fact made independently.

Since copying need not be intentional to be actionable, simply showing independent effort may not be sufficient, especially if the defendant might have had access to the allegedly infringed work. Unintentional infringement can occur, for example, if the defendant heard a piece of music and later prepared a piece that unconsciously copied the earlier work. However, if the defendant can show that the alleged copy was made before the making of the original, or at least before its publication or other date on which the defendant might have gained access to it, then no copying can have occurred.

Another situation in which this defense might be pertinent is one where both authors draw on the same sources. In such a case, the allegedly infringing work may contain substantial amounts of material that is common to the work alleged to be infringed. In this case, however, the defendant should be able to demonstrate differences in the form of expression of the two works.

- The work alleged to have been infringed was not protected under copyright at the time of the copying.

Ordinarily, a work that has been fixed in a tangible medium of expression is subject to copyright, but there are circumstances when a work may not be protected by copyright. Copyright has a fixed term – usually life of the author plus fifty years – so copyright may have lapsed for an old work. In some non-Berne countries, or countries that were not members of Berne at the time the work was made or published, copyright may have lapsed immediately, or the work may never have been protected, because of failure

to comply with formalities. Although the Berne Convention does not require countries to restore rights to works that have entered the public domain at the time of adherence to Berne, the TRIPS Agreement does have such a provision with regard to certain works.

A more limited instance of this defense may apply where the work is subject to copyright but the copied portions are not. Since copyright protection extends only to the form or arrangement of a work and not to the facts or ideas contained therein, a person might use factual information from a copyrighted source to produce another work that is not substantially similar to the original work. In such cases, the court must consider whether use of the original material constitutes the making of a derivative work. In each of the following examples, consider whether the second directory is a copy, *i.e.*, a derivative work, or an original work incorporating material that is not protected by copyright:

> **Example 1:** A telephone directory provides an alphabetical listing of the names of subscribers, together with their address and telephone number. A person uses that directory as the sole source for a reverse directory in which telephone numbers are given in numerical order, together with the name and address of the subscriber.
>
> **Example 2:** Another person creates a directory of addresses in a geographical area. Addresses are compiled from a variety of sources, and names and telephone numbers of residents are matched to addresses by using the telephone directory to verify the information.

- The work was copied, but the copying is a permitted use.

If copying has occurred, a court should determine whether the copying is excused. Most countries recognize some permissible uses of copyrighted material without permission of the author. Most agree that it is reasonable to copy brief portions of a work. Most also give greater latitude to copying for certain purposes, such as scholarly purposes, news reporting or literary criticism. Copying may also be permitted pursuant to an exclusion from copyright protection. For example, in countries where government works are not protected under copyright law, a person is entitled to quote extensively or even reproduce entire documents such as court opinions or statutes. In certain very narrow cases, copying may be permitted pursuant

to a compulsory license, such as the translation license for developing countries permitted under an Appendix to the Berne Convention. Finally, copying is excused if it were done with permission from the copyright owner.

Evaluating infringement claims

Whether infringement has occurred depends on whether the defendant has copied all or a portion of a work protected by copyright and whether the copying is a permitted use. Factors to consider in deciding whether the copying is permitted include

- the amount and substantiality of the work copied,
- the nature of the work copied,
- the nature of the allegedly infringing use,
- the effect of the copying on the market for the original work, and
- whether the copied material is taken from a published or unpublished work.

Applying these factors, short quotations are more likely to be permitted than long quotations. Quotation of factual material is more likely to be permitted than quotation of nonfactual material. Quotation from an unpublished work may be held to a higher standard than a quotation from a published work. A nonprofit or scholarly use is more likely to be permitted than a use for profit, but carried to its fullest extent, this would effectively remove copyright protection for academic and educational materials.

A balancing is required: a literary critic may quote a small portion of a fictional or dramatic work in order to illustrate the style of the work, even though the review will appear in a for-profit newspaper, but copying a substantial amount may replace the market for the original work. Most importantly, copying that replaces the market for the original work can rarely be considered as a permitted use.

None of these factors is absolute. A literary critic can is permitted to quote a small portion of a fictional or dramatic work in order to illustrate the style of the work, even though the review will appear in a for-profit newspaper, but copying a substantial amount may replace the market for the original work. A nonprofit copying is more likely to be permitted than the making of a copy for a for-profit purpose, but carrying this principle to its fullest extent would effectively remove copyright protection for academic and educational materials – and bring about a TRIPS violation.

The amount and substantiality of copying is a complex issue. Copying only a small portion of a work is more likely to be permissible use than copying a large amount. However, the question of whether a substantial amount has been copied should not be determined strictly on the basis of the percentage of work that is copied but should take into account the economic effect of the copying. Publishing a brief but particularly newsworthy segment of a book may destroy the market for the book, even though the copied material is only one or two pages out of several hundred. *See, e.g., Harper & Row Publishers, Inc. v. Nation Enterprises*, 471 U.S. 539 ((S.Ct. 1985), a case in which the a U.S. Supreme Court considered the situation where a newspaper published only a small portion of the memoirs of former U.S. President Gerald Ford. About 300 words out of a 20,000-word manuscript were copied verbatim, and the copied material related was considered newsworthy. However, since the memoirs were unpublished at the time of the publication by *The Nation,* and the portion it copied was the portion of greatest interest, so that a person who read the copied work had less incentive to purchase the original, the U.S. Supreme Court held the copying to be infringing.

It is also important to exercise some care in determining exactly what constitutes the copied work. Copying a photograph, drawing, poem, or essay that is included in a book may appear to be a small fraction of the whole – perhaps only one page out of several hundred. However, each photograph, drawing, poem or essay is a separate work of authorship, so that the copied portion represents 100% of the whole.

Defenses that rely on a claim that copying is a permitted exception should generally involve small amounts of copying. A more general exception is unlikely to be available since, under TRIPS, any limitations or exceptions to exclusive rights must be confined to certain special cases that do not conflict with normal exploitation of the work or unreasonably prejudice the owner.

There are no simple rules concerning the percentage of a work that can be copied without infringement, other than the observation that copying of 100% of a work is unlikely to be held to be within the permissible range of quotation. Finally, any use of copyrighted material should include mention of the source of the material and, if the author's name appears on the source, the name of the author.

Neighboring rights

Neighboring rights (also called *related rights*) protect the rights of performers, producers of phonograms (sound recordings), and broadcasting organizations. *Phonograms* are sound recordings such as audiotapes, records, or music CDs.[46] Some of the problems addressed by the TRIPS Agreement include the unauthorized copying or broadcasting of live performances and the unauthorized reproduction of recordings or of radio and television broadcasts. Under the TRIPS Agreement, nations must provide a legal means by which performers, broadcasters, and producers of phonograms can prevent such acts except with their authorization.

Berne Article 11 reserves to authors of dramatic works, dramatico-musical works, and musical works the exclusive right to authorize their public performance or communication to the public, and any translations thereof. Berne Article 11*bis* provides that authors of literary works have the exclusive right to authorize the broadcasting or communication to the public of their works by wire, rebroadcasting, loud speakers, or similar methods. and permission to broadcast does not include permission to record the work broadcast. Article 11*ter* provides that authors of literary rights also have the exclusive right to authorize their public recitation, any communication to the public of the recitation, and the same rights with respect to translations. Berne Article 12 provides that authors of literary or artistic works enjoy the exclusive right of authorizing adaptations, arrangements, and other alterations of their works.

The term of protection for neighboring rights must be at least 50 years from the end of the calendar year in which the fixation was made or the performance took place, or 20 years from the end of the calendar year in which the broadcast was made.

Copyright and neighboring rights distinguished

Rights related to copyright protect similar interests. Public performance of a dramatic work may require permission of the author under copyright law, but the performer, who has also invested time, talent, and other resources to refine his or her performance, has the related right to prevent others from making a recording of the performance without his or her permission. The author of a musical work can rely on copyright to prevent others from

[46] Sound recordings may be protected by copyright.

making copies of that work without the author's permission. Once that permission is given, the producer of a sound recording must invest time and resources to secure the right to make the recording and the skill, technical resources, and money to make and edit a high quality recording. The producer of sound recordings thus needs the protection under related rights to prevent others from making unauthorized copies of that sound recording. A broadcast organization must either produce works for broadcast or take steps to secure rights to broadcast works produced by others and therefore also needs protection against unauthorized recording or rebroadcast of broadcasts.

Copyright and other forms of protection

There is not always international consensus on which form of protection is best suited to a particular product. *Trade dress* may be protected in various countries under unfair competition law without registration, or by registering the package as an industrial design, or text and graphical elements may be protected under copyright law. Textile designs may be protected either under copyright law or as industrial designs law. Technical drawings, technical manuals, or confidential business information may be protected both as a trade secret and under copyright law. Each of these forms of intellectual property provides different protection to the owner. A product should have the benefit of each form of intellectual property that applies.

INTEGRATED CIRCUIT TOPOGRAPHIES

An *integrated circuit* is an electrical circuit constructed in miniaturized form on a wafer or chip. By permitting electronic items to be produced in a smaller form, these devices make it possible to construct a calculator or telephone that will fit in a pocket or purse, a computer that will fit on a desk, or a telephone that can be programmed to remember telephone numbers. Integrated circuits are used in a wide range of items, from sewing machines to the space shuttle, and are a mainstay of the modern electronics industry.

An integrated circuit is formed when an electrical circuit is embodied in a chip. Circuits for modern electronic items are complex and may contain literally thousands of elements. These elements are arranged in a manner that permits the circuit to fit into a tiny volume. This is accomplished by etching the circuit into a substrate, using a template or mask designed for that purpose, and building up the design layer by layer to form a chip. In the terms of the Treaty on Intellectual Property in Respect of Integrated Circuits[47] (IPIC Treaty), an *integrated circuit* is a product, in its final form or an intermediate form, in which the elements, at least one of which is an active element, and of some or all of the interconnection are integrally formed in and/or a piece of material and which is intended to perform an electronic function.[48]

The circuit itself may or may not be new. It is the arrangement of the circuit in this miniaturized form, and the mask for creating a chip embodying that arrangement, that are the subjects of protection. An *integrated circuit topography*, also known as a *layout design*, *semiconductor chip*, or *mask work*, is the three-dimensional disposition, however expressed, of the elements, at least one of which is an active element, and of some or all of the interconnections of an integrated circuit, or such a three-dimensional disposition prepared for an integrated circuit intended for manufacture.

In TRIPS Article 35, WTO Members agree to protect i*ntegrated circuit topographies* or *layout-designs* in accordance with certain provisions of the IPIC Treaty.

[47] This treaty was adopted at Washington on May 26, 1989. Egypt ratified this treaty, but it did not come into force.
[48] IPIC Treaty Article 2(i).

Protection of integrated circuits

TRIPS Article 35 requires WTO Members to protect integrated circuits. The standards for such protection are largely those of the IPIC Treaty.[49] These provisions require protection of integrated circuits regardless of whether the integrated circuit is incorporated in an article.[50]

IPIC Treaty Article 3(2) requires that integrated circuits be protected if they are "original in the sense that they are the result of their creators' own intellectual effort and are not commonplace among creators of layout-designs (topographies) and manufacturers of integrated circuits at the time of their creation." However, if the topography consists of a combination of elements and interconnections that are commonplace, it is to be protected only if the combination, taken as a whole, fulfills the conditions of being original and not commonplace among creators and manufacturers of integrated circuits. Article 4 of the IPIC Treaty provides that this protection may be met through a special law on layout-designs (topographies) or through a country's law on copyright, patent, utility model, industrial design, or unfair competition law, or any other law, or a combination of any of those laws

IPIC Treaty Article 5 provides for national treatment and extends the provisions of the Treaty to intergovernmental organizations.

Scope of protection

TRIPS Article 36 requires that the following acts must be unlawful if performed without the authorization of the owner:

- importing,
- selling, or
- otherwise distributing for commercial purposes

a protected layout-design, an integrated circuit in which a protected layout-design is incorporated, or an article incorporating such an integrated circuit only in so far as it continues to contain an unlawfully reproduced layout-design. This is consistent with the provisions of IPIC Treaty Article 6(1).[51]

[49] WTO Members are required to protect integrated circuits in accordance with the provisions of Article 1-7 of the IPIC Treaty, except for Article 6 paragraph 3, which concerns use without authorization of the owner.

[50] IPIC Treaty Article 3(1). This treaty has not come into effect.

[51] IPIC Article 6(1) provides:

Limitations on rights of owners

Article 6(2) of the IPIC Treaty creates a mandatory exception to the rights of owners for reproduction performed for private purposes or for the sole purpose of evaluation, analysis, research or teaching. It also creates a mandatory exception for new developments based on reverse engineering, *i.e.*, the situation where a person creates a second topography on the basis of evaluation or analysis of the protected topography. If that second topography complies with the requirement of originality, the person is permitted to incorporate the second topography in an integrated circuit or perform any of the acts of the owner in respect of the second topography without being regarded as infringing the rights of the holder of the right in the first topography.

TRIPS Article 37 limits the owner's rights with regard to the sale and distribution of integrated circuits that were innocently acquired. Full protection is limited to situations where a person doing one of the rights requiring authorization of the owner did not know and had no reasonable ground to know that he or she was acquiring an integrated circuit incorporating an unlawfully reproduced layout-design or any article incorporating such an integrated circuit. This is a mandatory exception, as WTO Members are prohibited from treating such acts as unlawful in those situations. Even after such a person has received sufficient notice that the layout-design was unlawfully reproduced, that person is permitted to continue to exploit the item with respect to stock on hand or ordered before such time as that person has such notice. However, such a person must be liable to pay the owner an amount equivalent to a reasonable royalty such as would be payable under a freely negotiated licence for a layout-design.

(a) Any Contracting Party shall consider unlawful the following acts if performed without the authorization of the holder of the right:

(i)the act of reproducing, whether by incorporation in an integrated circuit or otherwise, a protected layout-design (topography) in its entirety or any part thereof, except the act of reproducing any part that does not comply with the requirement of originality referred to in Article 3(2),

(ii)the act of importing, selling or otherwise distributing for commercial purposes a protected layout-design (topography) or an integrated circuit in which a protected layout-design (topography) is incorporated.

(b) Any Contracting Party shall be free to consider unlawful also acts other than those specified in subparagraph (a*)* if performed without the authorization of the holder of the right.

TRIPS Article 31 recognizes the possibility that a Government may authorize use of protected subject matter without the authorization of the owner. Where the subject matter concerns semi-conductor technology, TRIPS Article 31(c) requires that such Government authorization be limited to "public non-commercial use or to remedy a practice determined after judicial or administrative process to be anti-competitive." TRIPS Article 37.2 applies the conditions of subparagraphs (a) through (k) of TRIPS Article 31 *mutatis mutandis* to any non-voluntary licensing of a layout-design or of its use by or for the Government without the authorization of the right holder.

Article 6 (5) of the IPIC Treaty gives countries an option of providing for an exhaustion of rights when any of the acts requiring the authorization of the owner is performed in respect of a protected topography, or in respect of an integrated circuit in which such a topography is incorporated, that has been put on the market by, or with the consent of, the holder of the right.

Finally, Article 7 of the IPIC Treaty permits countries to set certain conditions for the protection of integrated circuits. A country may choose not to protect a topography until it has been ordinarily commercially exploited, separately or as incorporated in an integrated circuit, somewhere in the world. A country is also permitted to condition protection on the registration of the topography or the filing of an application for registration. Countries may require the application to be accompanied by a copy or drawing of the topography and, where the integrated circuit has been commercially exploited, of a sample of that integrated circuit, along with information defining the electronic function which the integrated circuit is intended to perform. The applicant must be permitted to exclude portions of the copy or drawing that relate to the manner of manufacture of the integrated circuit provided that the parts submitted are sufficient to allow the identification of topography. Countries that require the filing of an application for registration may also fix a time period within which the filing must be made. This period is to be figured from the date on which the owner first ordinarily commercially exploits the topography anywhere in the world and must not be less than two years from that date. Registration may be made subject to the payment of a fee.

Term

TRIPS Article 38 sets a minimum term of protection. For WTO Members requiring registration as a condition of protection, the minimum term must be not less than ten years from the date of filing the application or from first

commercial exploitation anywhere in the world. WTO Members that do not require registration as a condition for protection must provide a term of not less than ten years from the date of the first commercial exploitation anywhere in the world. Notwithstanding these requirements, a WTO Member may provide for protection of the topography to lapse fifteen years after creation of the topography.

PROTECTION OF MARKS

Marks play an important role in the marketplace. Identification of the source of goods or services is beneficial to everyone.

What is a mark?

A *mark*, sometimes called a *brand name*, is any device that serves to distinguish the goods or services of one undertaking from those of another. Ordinarily, a mark is a word, slogan, name, group of letters, symbol, design, picture, or any combination of these. A mark can also be a sound or the shape of a product or of its packaging. A mark used in connection with goods is called a *trademark*, and a mark is used in connection with services is called a *service mark.* Two other types of marks are *collective marks* and *certification marks*.

A mark can be legally protected

Legally, a mark is a type of property that can be owned by a person or business, just as other types of property, such as a wristwatch, automobile, or computer, are subject to ownership.

In Egypt, a person obtains ownership of legal rights in a mark by registering. This is accomplished by filing an application in the Trademark Office, which is part of the Ministry of Supply and Internal Trade. All applications are reviewed by the Trademark Office for compliance with the law. Many, but not all, applications result in registration of the mark for specific products or services. Registration gives the registrant the legal right to the exclusive use of the mark in connection with the products or services that the registration covers and perhaps to related products or services.

Function of a mark

The reason for using a mark is to indicate that the products or services it identifies originate from the owner or are produced under the owner's supervision. Another very important reason for using a mark is to indicate that all the products or services it identifies will be of the same quality and uniformity. Typically, a mark is placed on labels and packaging of products, or on the products themselves, and on advertising and

promotional material for services. Often, a specific symbol appears next to a mark to indicate that legal rights apply to it. For instance, the symbol ® may be used to indicate that the mark has been registered.

Reliance on a mark as a quality/source of origin indicator

Because a mark indicates the origin of the products or services it identifies, it enables everyone to know who is responsible for producing or providing them and makes their source traceable. A mark also makes it possible to differentiate between the same or very similar products or services offered by different companies.

A mark is also something everyone can depend upon to indicate that all the products or services it identifies are uniform or the same with respect to their level of quality or reliability, at minimum. In other words, a consumer can expect that the products or services the mark identifies will meet the producer's usual standards, regardless of where they are purchased. The mark allows the consumer to predict whether goods or services will satisfy the consumer's expectations and preferences for particular types of products or services.

Infringement can cause injury

Infringement of a mark harms the public and industry as well as the owner of the mark. Infringement occurs when the mark of one person is used without that person's permission by someone else to identify products or services that are the same as or similar to those of the owner of the mark, but which do not originate with the mark's owner. One result is to deceive people who purchase infringing products or services into believing they are purchasing those offered by the mark's owner. Infringement can also occur when someone uses a mark that looks like, sounds like, or in other ways is similar to the owner's mark.

Infringement deceives the consumer, who receives goods or services that, at best, are not what the consumer intended to purchase. People who purchase products or obtain services identified by an infringing mark may be injured because the quality or reliability of such products or services may be poor or not of the same value as those offered by the mark's owner. Goods bearing an infringing mark may be defective, have a very short useful life, contain harmful material, be unsuitable for use, or fail to perform in the way expected, among other things. Even if the goods or services are of

comparable quality, however, the consumer who needs repair or maintenance services may find it difficult to locate the person who offers the products or services, or that person may not guarantee the quality of those goods or services to the same extent quality is guaranteed for the products or services of the mark's owner.

Infringement harms the owner of the mark, who not only loses the sale but also suffers damage to his or her reputation. Consumers may wrongly associate the trademark owner with problems the consumer experiences with the infringing goods. They may avoid making future purchases from the producer of high quality goods because of bad experiences with infringing goods. Industry also suffers from trademark infringement because of the lack of consumer confidence in trademarks. Consumers who have been once deceived will be more cautious in making future purchases, to the detriment of all merchants and suppliers.

A special case of trademark infringement is *trademark counterfeiting*, where the mark and packaging are both copied. This is particularly serious since the consumer justifiably relies on the reputation for quality associated with the mark and instead receives items that are substandard and in some cases harmful or even deadly.

Public policy permits copying and use unless a word and/or design is protected

A determination whether trademark protection should be granted is ordinarily done on a case - by - case basis, keeping in mind that in a free market economy, competition should be promoted and encouraged. Competition is socially and economically desirable.

In light of this principle, as a general policy, it is in the public's interest to allow copying and use of a word, phrase, design, and/or combination of these elements in connection with products and services if the element is in the public domain. However, this policy yields to the public interest of preventing confusion, mistake, and deception in commerce when a person seeking to prevent use of his mark or a similar mark by another person is able to satisfy the burden of proving the validity of his rights in the mark and infringement of those rights by the other person.

Obtaining protection

A mark can be protected by registering it. Registration must be effected in any country where the owner wants the exclusive right to use the mark on goods or in connection with services. In Egypt and many countries, rights in a mark are obtained through registration. In other countries, rights in a mark may be obtained by use of the mark, but even in those countries, registration confers important legal rights. In Egypt, registration is accomplished through the Trademark Office. The task of registering a mark in many countries is made easier since Egypt is a member of the Madrid Convention. This allows applicants in Egypt to file a single application designating the countries in which protection is desired.

What is a Surname?

A surname is a family name.

Reasons for refusing registration to a surname:

- A surname is descriptive because it may be understood as indicating the name of the person who offers products or services.
- Every person has a right to use his or her surname to indicate that he or she offers products or services.

Trademark registration should be accomplished early since applicants run the risk that another party may wish to register the same mark. Not only is it important to register the mark quickly within Egypt, foreign registrations should be accomplished promptly as well. Under the Paris Convention, an applicant may rely on a registration in one Paris Convention country to establish an earlier effective filing date in another Paris Convention country. This is done by claiming priority based on the earlier filed application.

The right of priority gives the applicant the ability to claim the same filing date in other countries as its first filing date, usually in its own country, *provided that the subsequent applications are filed within the priority period,* which is six months for trademark applications. This is a strict date, and there is no provision under international law for extending that period. An applicant can still file abroad after the priority period has expired but runs the risk that another party may have registered the mark in the interim.

Legal basis for protecting marks

Trademarks, service marks, certification marks, and collective marks that meet the requirements of Egyptian trademark law may be legally protected in Egypt in accordance with that law and, as appropriate, to the extent provided in treaties or international agreements to which Egypt is a party.

Conditions for registrability

The conditions for registrability of a mark are set by national law. While those conditions vary somewhat, in general a mark will be registrable if it is not confusingly similar to another mark that is entitled to be protected, taking into consideration the goods to which the mark is applied.

Other legal conditions on registrability refer to the use of surnames, geographically descriptive terms, or conditions of public policy, among other things. In accordance with Article 15.3 of the TRIPS Agreement, WTO Members may make registrability depend on use, although actual use of a trademark cannot be a condition for filing an application for registration. As provided in TRIPS Article 15.4, registration cannot be denied on the basis of the nature of the goods or services to which a trademark is to be applied.

What is a Geographical Name?

A geographical name is a word, picture, abbreviation, or combination of these things that members of the public can reasonably believe indicates a particular geographic location. Geographical names include names of continents, countries, regions, cities, towns, rivers, and addresses, as well as nicknames for these things.

Reasons for refusing registration to a geographical name:

- A geographical name can be descriptive if it is the name of the area where a product or service originates, or where an applicant has a place of business.
- Every merchant in a particular geographic area has a right to indicate that the merchant's products or services are from that area.

Evaluating a Mark for Surname Significance

Refer to telephone directories for major cities of the world (e.g., Cairo, London, Madrid, Munich, New York, Paris, Rome, Tokyo) dictionaries, biographical databases, and other information sources for surnames ("reference material)" to determine whether the mark or any component of the mark is a surname. Also, review the application itself to learn whether the mark is the surname of the applicant or the individual who signs the application or power of attorney.

1. If the mark is a surname:

- *How many listings appear in the reference material for this name?*

If there are few listings, generally it is appropriate to accept the mark for registration. However, regardless that there may be a small number of listings, if it is reasonable to believe that many people will understand that the mark is nothing other than a surname, it is appropriate to refuse registration.

- *Are there other meanings for the mark?*

If so, is it reasonable to believe that members of the public or trade are likely to

- *think first of the mark as a surname?*

If so, it is appropriate to refuse registration unless the applicant provides convincing information that shows the mark is distinctive.

- ***think first of the other meaning?***

If so, it is appropriate to accept the mark for registration although there may be many listings.

2. If the mark consists of a surname plus other wording or a figurative element:

- *Is the overall meaning of the mark a surname?*

If not, it is appropriate to accept the mark for registration.
It is inappropriate to divide a mark like this into parts and then refuse registration because one part is a surname.

Evaluating a Mark for Geographical Name Significance

Refer to a dictionary, atlas, gazetteer, and encyclopedia ("reference material)" to determine whether the mark or any component of the mark is a geographical name.

1. If the mark is a geographical name:

- *Does the reference material indicate that the geographic location has a reputation for particular products or services?*

If so, and the application is for products or services of the kind that originate or would be likely to originate in that location, it is appropriate to refuse registration, unless the applicant provides convincing information that shows the mark is distinctive.

- *Is the applicant's business or any of its offices located in the geographic area?*

If so, it is appropriate to refuse registration unless the mark has another meaning that is generally known to the public, or the applicant provides convincing information that shows that the mark is distinctive.

- *Are the applicant's products produced in or are the applicant's services rendered in the geographic area?*

If so, it is appropriate to refuse registration unless the mark has another meaning generally known to the public, or the applicant provides information that shows that the mark is distinctive.

2. If the mark is a geographical name and also has another meaning, such as the name of a natural product, mineral, manufactured product, chemical element, animal, or individual:

- *Is it reasonable to believe that members of the public or trade are likely to*

    - *think first of the mark as being a geographical name that indicates where the products or services originate?*

If so, it is appropriate to refuse registration, unless the applicant provides convincing information that shows the mark is distinctive.

    - *think first of the non-geographical name meaning and not rely upon the mark as indicating where the products or services originate?*

If so, it is appropriate to accept the mark for registration.

Trademark terminology

Becoming familiar with the following terminology and definitions is critical to the process of evaluating trademarks for infringement. This list represents those terms used commonly when referring to trademark protection, but it is not intended to be comprehensive in the sense that every suitable term is included.

Abandonment means that bona fide use of a mark in Egypt has been discontinued in the ordinary course of trade for the goods or services the mark identifies with intent not to resume use. Intent not to resume use may be inferred from circumstances. Nonuse for five consecutive years constitutes *prima facie* abandonment.

Appellation of origin is the geographical name of a country, region or locality which serves to designate goods originating in that country, region or locality, whose characteristics or peculiarities are due exclusively or essentially to the geographical environment, including natural and human factors as well as production traditions.

Arbitrary mark means a mark that consists of a word, name, symbol, design, or picture that is commonly used, but when used in connection with goods or services it does not suggest or describe any ingredient, quality, use, function, or other characteristic of the goods or services.

Certification mark means a mark that certifies the source, quality, one or more of the characteristics of the goods and services produced, distributed, and/or marketed by persons who are permitted to use it by the owner. A certification mark is not an appellation of origin.

Collective mark means a mark that is capable of distinguishing the goods and services of members of cooperatives, associations, or other collective groups or organizations from the goods and services of other persons.

Descriptive mark means a mark that describes an ingredient, quality, use, intended use, function, or other characteristic of the goods or services in connection with which it is used.

Earlier mark means a person's mark that is

(a) registered or pending in the Trademark Office that has an application filing date earlier than the filing date for another person's mark that was applied for later or used later; or

(b) a mark that is well-known on or before the filing date or first use date of another person's mark; or

(c) a mark that is well-known on or before the priority date claimed by another person under a treaty that concerns the protection of intellectual property rights that is in effect and to which Egypt is a party.

Fanciful mark means a mark that consists of a made-up work that has been created for the sole purpose of functioning as a mark.

Forged or counterfeit mark means a mark used without the registrant's authority that is identical with or substantially indistinguishable from a registered mark

Generic term is the name of a product or service that members of the public understand to mean the product or service, not its source. A generic term is in the public domain available for use by everyone to refer to the product or service.

Mark means anything capable of distinguishing the goods and/or services of one person from the goods and/or services of other persons that can be represented graphically, multi-dimensionally, and/or by sound, particularly words, including personal names, designs, symbols, letters, numerals, trade dress, and combinations of color in a particular appearance, or combinations of any of these things.[52] A mark can be a trademark, service mark, certification mark, or a collective mark.

Registered mark means a mark registered by the Trade Marks Registration Department

[52] There are very limited instances in which a smell has been recognized as a mark. TRIPS Article 15 allows WTO Members to limit registration to signs that are visually perceptible. Where signs are not inherently capable of distinguishing the relevant goods or services, it also permits WTO Members to may make registrability depend on distinctiveness acquired through use.

Service mark means a mark that is capable of distinguishing services. Frequently, the word *trademark* is also used when referring to services, although this is not technically correct.

Trade dress means the total look of a product or its packaging, which can be the design and shape or overall appearance of a product or its packaging.

Trademark means a mark that is capable of distinguishing goods.

Trade name means the name of a business.

Unfair competition means any act of competition contrary to honest practices in industrial or commercial matters. These include:

(a) acts that create confusion with the business, products, or activities of a competitor;
(b) false allegations that discredit a competitor; and
(c) indications that are liable to mislead the public as to things such as the nature or qualities of products or services.

Examples of unfair competition include trademark infringement, palming off, passing off, trade secret theft, false advertising.

Use of a mark and *using a mark in the course of nonprofit or for profit business* means the following actions, among others:

(a) attaching the mark to the goods, or packaging and/or labeling for the goods, or to displays closely associated with the goods, or placing the mark in advertising or promotional material for the goods or services, or in other ways establishing a relationship between the mark and the goods or services;

(b) offering the goods or services or making them available or preparing them to be available in the market under the mark;

(c) importing or exporting goods under the mark.

Well-known mark or famous mark means a mark considered to be well-known in Egypt, based upon publicly available information, for the goods and/or services of a person entitled to the benefits of Article 6*bis* of the Paris Convention for the Protection of Industrial Property. By virtue of TRIPS Articles 2 and 3, this benefit likewise applies to all WTO Members.

Rights of owner of registered mark

The owner of a registered mark has the exclusive right to use the registered mark in Egypt for the goods or services specified in the registration. The owner also has the right to prevent all persons not having the owner's authorization from using in the course of trade and/or nonprofit or for-profit business:

> (a) a mark that is identical or similar to the registered mark, for goods or services that are identical or similar to those for which the mark is registered, *and* because of such similarity there exists or would exist a likelihood of confusion on the part of the public and/or trade in Egypt, *or* if use of the mark would take unfair advantage of, or be harmful to, the distinctive character or reputation of the registered mark;
>
> (b) a mark, word, symbol, design, and/or other thing that is identical or similar to the registered mark that constitutes an act of unfair competition within the meaning of the Paris Convention and/or any law of Egypt.

To comply with Article 16.1 of the TRIPS Agreement, the owner of a registered trademark must have the exclusive right to prevent all third parties not having the owner's consent from using in the course of trade identical or similar signs for goods or services which are identical or similar to those in respect of which the trademark is registered where such use would result in a likelihood of confusion. In case of the use of an identical sign for identical goods or services, a likelihood of confusion must be presumed.

Rights of owner of well-known mark

The owner of exclusive rights in a well-known mark must be entitled to prohibit use in Egypt of a mark of the type described in the section *Rights of owner of registered mark,* if the registrant or user of such mark does not have the owner's authorization. In addition, the owner of a well-known mark must be entitled to the same remedies regarding a mark that is identical or similar to the well-known mark for goods or services that are not similar to the goods or services the well-known mark identifies, provided that the interests of the owner of the well-known mark are likely to be damaged by such use.

International requirements

Article 6*bis* of the Paris Convention requires that Paris Convention countries refuse or cancel the registration of any trademark, and prohibit the use of such mark, that constitutes a reproduction, imitation, or a translation, liable to create confusion with a mark that is considered to be well-known and used for identical or similar goods. In addition, Article 16.3 of TRIPS provides that Article 6*bis* of the Paris Convention (1967) shall apply, *mutatis mutandis*, to goods or services which are not similar to those in respect of which a trademark is registered, provided that use of that trademark in relation to those goods or services would indicate a connection between those goods or services and the owner of the registered trademark and provided that the interests of the owner of the registered trademark are likely to be damaged by such use.

Likewise, TRIPS Article 16.2 provides that Article 6*bis* of the Paris Convention (1967) shall apply, *mutatis mutandis*, to services. In determining whether a trademark is well-known, Members must take account of the knowledge of the trademark in the relevant sector of the public, including knowledge in the Member concerned which has been obtained as a result of the promotion of the trademark.

Term

In Egypt, the term of trademark registration is ten years. A registration may be renewed indefinitely. While the term may vary from country to country, the minimum term specified under TRIPS Article 18 is seven years, indefinitely renewable.

Use and other conditions on marks

While use of a mark cannot be required as a condition of filing an application, some countries do require use to obtain the actual registration or to maintain it in force. In cases where use is required to maintain the registration, TRIPS Article 19.1 provides that the registration may be cancelled only after an uninterrupted period of at least three years of non-use, unless valid reasons based on the existence of obstacles to such use are shown by the trademark owner. Circumstances arising independently of the will of the owner of the trademark which constitute an obstacle to the use of the trademark, such as import restrictions on or other government requirements for goods or services protected by the trademark, must be

recognized as valid reasons for non-use. TRIPS Article 19.2 provides that the use of a trademark by another person must be recognized as use of the mark for purposes of maintaining the registration, so long as the mark is subject to the control of its owner.

TRIPS Article 20 prohibits WTO Members from imposing certain special requirements on the owners of marks. Under that provision, the use of a trademark in the course of trade must not be unjustifiably encumbered by special requirements, such as use with another trademark, use in a special form or use in a manner detrimental to its capability to distinguish the goods or services of one undertaking from those of other undertakings.

This does not preclude a requirement prescribing the use of the trademark identifying the undertaking producing the goods or services along with, but without linking it to, the trademark distinguishing the specific goods or services in question of that undertaking.

Types of Marks Distinguished

- *Trademarks* identify the manufacturer or supplier of goods
- *Service marks* identify the supplier of services
- *Collective marks* identify goods produced by members of an association
- *Certification marks* identify the owner of standards and the certifying organization

Other types of marks

A trademark or service mark is used exclusively by the owner, or with the owner's consent and under the owner's control. Two other types of marks are used by persons other than the owner.

A *collective mark* is used by members of a collective organization to show membership in the organization or to show that goods or services are produced or furnished by members of the organization. The collective organization is the owner of the collective mark and must ensure that only qualified persons (*i.e.*, members) use it. The mark would be used by many persons on goods or in connection with services they provide. A *collective trademark* or *collective service mark* indicates commercial origin of goods or services in the members of a group, *i.e.*, that the goods were produced by, or services provided by, a member of the group. A *collective membership mark* indicates membership in an organization.

Another type of mark used by others is the *certification mark*. A *certification mark* shows that the owner of the mark certifies that the goods or services meet certain standards. The standards can relate to the quality or characteristics of the goods or services, qualifications of persons who produce the goods or provide the services, or the geographic origin of the goods or services. The owner of a certification mark is not permitted to use the mark on goods or services provided by the owner.

Types of Certification Marks

- Marks that certify that goods or services originate in a specific geographic region
- Marks that certify that the goods or services meet certain standards in relation to quality, materials, or mode of manufacture
- Marks that certify that the performer of the services or manufacturer of the goods has met certain standards or belongs to a certain organization or union

The use of a geographic term as a certification mark raises special issues. It is good policy to preserve the freedom of all persons in the region to use the term and to prevent abuses or illegal uses of the mark that are detrimental to all those entitled to use it. Generally, use of the mark is controlled through the government of a region, either directly or through a body to which it has given authority. It is appropriate for the applicant for a geographical certification mark to be a government (*e.g.*, country, state or city); a department of a government; or a body operating with governmental authorization although not formally a part of the government. The signature of any person with a responsible position of authority in the applicant organization should be acceptable.

Distinguishing among various types of marks

Both trademarks and service marks indicate commercial origin of the goods or services that are the subject of the mark. A collective mark indicates membership in an organization or that goods or services are produced by members of an organization. The owner of a trademark or service mark has the exclusive right to use or authorize the use of the mark for the same or similar goods and services. Collective marks and certification marks are used by more than one person.

Only the users of collective marks are related to each other through being members of a collective group. Only the certification mark certifies

qualities of the goods or services. Unlike a trademark or service mark, a certification mark *is not used* by its owner, *does not indicate* commercial source, and *does not distinguish* the goods or services of one person from those of another person.

Licensing and assignment of marks

Under TRIPS Article 21, Members may determine conditions on the licensing and assignment of trademarks. However, compulsory licensing of trademarks is not permitted, and the owner of a registered trademark must have the right to assign the trademark with or without the transfer of the business to which the trademark belongs.

If the owner of a mark licenses its use to another party, the owner must continue to exercise control over the standards of the goods or services subject to that license. This allows a consumer to predict whether the goods or services identified by the mark will satisfy the consumer's expectations and preferences for particular types of products or services.

Evaluating Infringement

To prove infringement, the owner of a mark must prove by a preponderance of the evidence that the registered mark, or a mark that is confusingly similar to the registered mark, is being used without the owner's consent on goods or services that are identical with, or similar to, the goods or services associated with the mark, and that such use creates a likelihood of confusion. In addition to evidence supporting the owner's superior rights in the mark, it is critical that the owner be able to satisfy the likelihood of confusion standard.

Superior Rights Evidence

Superior rights are established by evidence showing that the owner's application filing date or first use of the mark in Egypt was earlier than an application filing date or first use in Egypt of a mark claimed to be infringing. An exception to this rule applies if the mark claimed to be infringing is well-known on or before the date of filing or first use of the owner's mark.

Likelihood of Confusion

To satisfy the likelihood of confusion standard, the owner must clearly establish that the mark claimed to be infringing is likely to cause confusion or mistake or to deceive regarding the source of goods or services or their association with or sponsorship by a particular source. Possible confusion is not enough, the confusion must be probable. To meet this standard, the owner must offer evidence and present arguments on a number of factors that a court may consider to reach a decision on the infringement claim. These factors are discussed below.

Actual confusion

It is unnecessary to introduce evidence regarding or to prove actual confusion to prevail on an infringement claim, although such evidence may be persuasive proof that a likelihood of confusion exists. However, if actual confusion evidence is offered it alone does not mean an infringement claim should be sustained. The actual confusion may be the result of carelessness, inattention, or indifference rather than any similarity between the marks. It is within the court's discretion to give evidence of actual confusion little weight when that evidence is not clear and convincing.

Who is likely to be confused

In showing likelihood of confusion, the relevant group is the class of customers and potential customers for goods or services of the type the owner and alleged infringer offer under the marks that are the subject of the infringement claim. Depending upon the goods or services, this group may be consumers, distributors, wholesalers, retailers, or other types of businesses as well as professionals and government agencies.

To prevail on an infringement claim it is unnecessary for the owner to show that all or a majority of the members of the group would be confused. Ordinarily, it is sufficient to show that an *appreciable number* of reasonable purchasers are likely to be confused. This number may be large or small depending upon the facts of the particular case.

Proper perspective with regard to evaluating confusion

As a general rule, a court should evaluate marks from the standpoint of a reasonable purchaser based upon the context in which ordinary purchasers come into contact with marks in the marketplace. In addition, it is important to note that many purchasers do not recall marks exactly. Accordingly, in many instances, an evaluation of the marks should not be done based upon a side-by-side comparison. This is not usually how purchasers see marks in the marketplace. A court should not make a determination of infringement based solely upon the court's personal evaluation of the marks but should instead consider evidence of the likelihood of confusion.

Type of evidence

To support an infringement claim, an owner may provide survey evidence or evidence of actual confusion. In addition or alternatively, the owner may offer an argument that, among other things, compares the marks and the goods or services the marks identity and how the marks are used in the marketplace.

Survey evidence is usually in the form of responses by members of the relevant purchasing group to a series of questions prepared by an independent organization for purposes of showing the respondents' state of mind concerning similarities between marks in infringement proceedings.

Likelihood of confusion factors

In determining whether a trademark owner has satisfied the likelihood of confusion standard, it is appropriate to consider evidence concerning the following factors.

1. ***Similarity or dissimilarity of the marks in their entireties based appearance, sound, meaning, and commercial impression they each create.***

Comparison of marks: Although similarity of marks is an important element in determining infringement, it is possible for a court in one case to find no infringement even though one mark is identical to the other mark involved in the same proceeding, yet in another case to find infringement when one mark is similar but not identical to the other involved in that proceeding. This is possible because comparing marks does not simply

involve looking at the marks alone. The court must also consider whether the goods or services they identify are identical, similar, related, or frequently used and/or marketed together.

When the goods or services are identical, the court must find infringement if the marks are identical. If the marks are not identical, an infringement finding may be appropriate if the goods or services are similar or related to each other or frequently used and/or marketed together, using the factors discussed below to determine whether the marks are sufficiently similar to support an infringement finding. In other words, the degree of similarity between marks that is necessary to find infringement typically depends upon the goods or services the marks identify. As the similarity of the goods or services increases, the required degree of similarity between the marks decreases. On the other hand, as the similarity of the goods or services decreases, the required degree of similarity between the marks increases.

Consider entire mark: When marks consist of combinations of words, or words and pictures, or of other things, it is important to consider them in their entireties and the overall commercial impression each creates. It is inappropriate to base a likelihood of confusion finding solely on the identity or similarity of individual components. However, it is proper to give greater weight to a prominent feature if the average purchaser would be more likely to remember and use it as indicating origin because it makes a substantial impression. It is also proper to give less weight to descriptive or generic components or those that are weak because they are widely used as part of marks for similar goods or services. However, components in which the owner disclaims exclusive rights should not necessarily be discounted with respect to determining whether there is a likelihood of confusion.

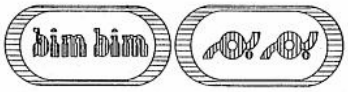
Appearance: It is appropriate to treat pictures as equivalent to words and *vice versa*. Similarly, alphabet letter combinations and abbreviations can be treated the same as the words they are understood to mean. With respect to marks that consist of alphabet letters, similarity of appearance can be controlling with respect to likelihood of confusion determination because these kind of marks are difficult to pronounce and usually do not have an ascertainable meaning.

Sound: The usual pronunciation by the public is controlling and marks that are phonetically equivalent, including misspelled words, can be treated as the same. However, when marks sound alike but suggest different things it may be appropriate to determine that there is no likelihood of confusion. When goods or services are of the type frequently purchased by verbal order, sound is a very important factor in evaluating the likelihood of confusion question.

Some Differences Do Not Avoid Likelihood of Confusion Between Marks

Translation or transliteration into a foreign language does not distinguish one mark from another.

The following transliterations are identical marks:



or **Sakhr** for

Likewise, translations of foreign terms are identical for purposes of determining whether two marks are confusingly similar: Meister, Master, and Maitre; Swiss, Suisse.

Minor changes in spelling do not distinguish a mark from another.

For example: Old, Olde; Shop, Shoppe; Quick, Kwik; Light, Lite.

Changes in type font or color ordinarily do not establish distinctiveness.

Meaning: Marks that are different words but which suggest the same thing, communicate the same idea, or stimulate the same mental reaction can be treated as the same or substantially similar. It is possible that the meaning of a mark outweighs its visual or phonetic difference and, as a result, is

likely to cause confusion. In evaluating foreign words in a mark for likelihood of confusion, it is appropriate to consider the Arabic language translation and meaning to an appreciable segment of relevant purchasers.

The foreign word can be treated as equivalent to the Arabic language translation. If the word can be translated in a number of ways, only the primary and common translation should be considered. When the owner's mark and the claimed infringer's mark are both foreign words, it may be appropriate to consider them "as is" rather than translating them.

2. ***The similarity or dissimilarity and the nature of the goods or services the marks identify.***

Comparison of goods and services**:** When the goods or services that marks identify are not the same, the court must determine whether they are sufficiently related to support a claim that the relevant class of customers or potential customers for them is likely to believe they originate from a common source. If the evidence shows that this is the case, a finding of infringement may be appropriate even though the goods or services are not identical or the persons who use the marks are not in competition with each other.

Suitable evidence in support of such a claim can be facts that indicate: (a) the goods or services of one party are directly competitive with those of the other party, although not the same; or (b) the goods or services of the parties are commonly or frequently used together and/or marketed together; or (c) the goods or services are likely to reasonably create the impression, in the mind of the relevant class of customers or potential customers, that there is some kind of connection between persons who offer those goods or services under the same or similar mark. Appropriate evidence offered to contradict such a claim can be facts that show the goods or services of the parties are so different or far apart that members of the class of relevant customers or potential customers would not reasonably believe they originate from the same source.

Medicinal and potentially harmful products: Generally, when marks are for medicinal products or goods that may produce physically harmful results to users, it is appropriate to find infringement based upon less similarity between the marks than necessary for goods that do not pose possible dangers to public health or safety.

3. ***Similarity or dissimilarity of the trade channels through which the goods or services travel.***

The method of or trade channels for distributing and making goods or services available to intended customers can indicate that there is little chance for likelihood of confusion or alternatively that confusion is likely.

When the parties distribute their respective goods using the same or very similar methods, including the same distributors, and/or make their goods available to purchasers in the same or same kind of retail outlets, it would be reasonable for the court to find a likelihood of confusion where the same or similar marks are involved.

On the other hand, when there is some overlap in marketing approaches and/or markets, but the intended purchasers from one party do not customarily buy the kind of goods the other party offers, the court may conclude confusion is unlikely although the marks for the goods may be the same or similar.

4. ***Conditions under which, and purchasers (impulse versus careful or sophisticated) to whom, the goods or services are offered; the degree of care purchasers exercise in connection with purchasing the goods or services.***

As a general rule, the court can expect that the extent of thinking, observation, and attentiveness a reasonably careful purchaser exercises in connection with buying goods or services depends upon the particular goods or services.

Typically, for goods or services that are impulse items or relatively inexpensive the purchaser will be less thoughtful, observant, and attentive than for those that are costly or require special knowledge or skills to use.

Because an impulse or relatively inexpensive item oftentimes is purchased casually without full attention to the mark that identifies it, a court could reasonably conclude that the prospects for likelihood of confusion are high when the same or similar marks are used for goods or services in this category.

Purchasers of costly goods or services, or those that require special knowledge or skills to use, usually do not buy casually. Normally, such

purchasers carefully consider, evaluate, investigate, and devote attention to this kind of goods and services as well as their source. Consequently, a court can reasonably conclude that these purchasers are sophisticated or discriminating and that the prospects for likelihood of confusion are not necessarily high simply because the same or similar marks are used for the goods or services in this category.

5. ***Fame of the earlier mark as determined by length of use, advertising and promotion, revenues from sales.***

A worldwide practice and requirement under Article 6*bis* of the Paris Convention for the Protection of Industrial Property, an intellectual property treaty that Egypt has signed, protects famous marks against use of the same or substantially similar mark for the same or related goods or services. Accordingly, the fame of a mark as well as whether it is famous should be evaluated for purposes of deciding if this is a factor favorable to the person who claims infringement.

Keeping this in mind, in connection with determining whether a mark is famous or "well-known," the court should consider evidence that concerns how long the mark has been used, the duration, amount, and geographic extent of advertising and promoting goods or services under the mark, the degree of recognition of the mark in the marketplace, the nature and extent of use of the same or similar mark by third persons, and the distinctiveness of the mark.

6. ***Number and nature of similar marks for the same or similar goods or services, which can indicate the strength or weakness of the marks in issue.***

As with determining the fame of a mark, the extent to which third persons use the same or similar mark indicates its distinctiveness and strength in terms of the protection it is entitled to receive. Another indicator of strength is the nature of the mark itself. Typically, a mark that has descriptive aspects, is laudatory, or is a commonly used word may be weak and, therefore, entitled to only a very narrow scope of protection. This usually means protection against use of the exact mark for the identical goods or services.

When there is evidence that shows many unrelated persons use the same or substantially similar mark for goods or services the same or closely related

to those of the person claiming infringement, the court would not be unreasonable in concluding the mark is weak and require that the marks and goods or services of the parties' be identical to find infringement.

If there is no evidence of a relatively large number of similar marks for the same or similar goods or services, or that the mark claimed to be infringed is not strong, the court could reasonably find infringement when the goods or services of the parties are related although the parties' marks are not identical.

7. ***Nature and extent of any actual confusion.***

Refer to the section above on *actual confusion* for general comments about this factor.

A court should carefully evaluate evidence of actual confusion in connection with determining whether it is adequate to support an infringement claim. Sometimes this is the result solely of misdirected inquiries, thoughtlessness, or an occasional mistake. The number of instances of actual confusion keeping in mind the number of opportunities for confusion, the circumstances under which confusion occurred, and the form or method of showing actual confusion should all be carefully considered.

If the court is not convinced actual confusion evidence is strong, it can give it little weight in connection with determining whether there is infringement.

8. ***Length of time during and conditions under which the marks have been concurrently used without evidence of actual confusion.***

Co-existence of the marks in the marketplace for a reasonable time period without any known confusion can be persuasive evidence that there is no likelihood of confusion, if certain other facts exist.

Among relevant facts the court can consider are

> (a) whether the method of, or trade channels for, distributing and making goods or services available to intended customers are the same or differ,
>
> (b) the price of the goods or services,
>
> (c) the similarity or dissimilarity in the class of relevant customers or potential customers,
>
> (d) how and under what circumstances intended customers encounter the goods or services in the marketplace,
>
> (e) the efforts the party claiming infringement has taken to monitor the marketplace for infringing marks,
>
> (f) whether the parties have dealt with each other concerning the goods or services in question or other goods or services, and
>
> (g) whether and how the parties advertise and promote their respective goods or services.

9. *Intent of the later user.*

Generally, infringement is evaluated primarily by using the likelihood of confusion test, which does not include as an element the later user's intent. Therefore, proof of the later user's intent is unnecessary to support a successful infringement claim. Similarly, evidence of the later user's good faith in using a mark should not be determinative regarding such a claim.

Although intent is irrelevant in determining whether members of the relevant class of customers or potential customers will be likely to be confused, it is relevant to the likelihood of confusion issue. Consequently, when there is evidence that the later user intended confusion it can be inferred that confusion exists and the later user should have the burden of proving the absence of a likelihood of confusion.

When there is no direct evidence of intent to confuse, the court can consider circumstantial evidence in the form of the later user's actions. For instance, this kind of evidence can be and include proof that the later user

(a) knew about the earlier user's mark at the time the later user selected the mark,

(b) acknowledged an intent to use a mark like or which brings to mind the earlier user's mark, and

(c) advertises and promotes his goods or services in a way that strongly shows an intent to lead members of the relevant class of customers or potential customers to believe the goods or services originate from the same source as the earlier user's goods or services.

CONCEPTS RELATED TO TRADEMARK: TRADE NAMES, TRADE DRESS, AND GEOGRAPHICAL INDICATIONS

The protection of trademarks, trade names, trade dress, and appellations of origin is related to the obligation of Paris Convention countries to provide in their national laws for the repression of unfair competition. *Unfair competition* is defined as any act of competition contrary to honest commercial practices in industrial or commercial matters.[53] Laws prohibiting unfair competition protect intangible property such as business goodwill, trade dress, trade secrets, and know-how. Acts of unfair competition include but are not limited to breach of contract, misappropriation of trade secrets, and false or misleading representations as to the origin or quality of goods or services. Laws against unfair competition are sometimes included in commercial (companies) law and sometimes in consumer protection law. At a minimum, Paris countries must prohibit

1) all acts of such a nature as to create confusion by any means whatever with the establishment, the goods, or the industrial or commercial activities of a competitor;

2) false allegations in the course of trade of such a nature as to discredit the establishment, the goods, or the industrial or commercial activities, of a competitor; and

3) indications or allegations the use of which in the course of trade is liable to mislead the public as to the nature, the manufacturing process, the characteristics, the suitability for their purpose, or the quantity, of the goods.

Restrictive business practices (monopolies) related to licensing may also be acts of unfair competition.

Paris Convention countries are obligated to provide for effective legal remedies to repress certain other unlawful acts:
goods unlawfully bearing a trademark or trade name must be seized on importation into Paris Member countries where the mark or name is entitled

[53] Paris Convention Article 10*bis*(2*)*.

to legal protection [54] or where the unlawful affixation occurred or in the country into which the goods were imported.[55] Goods that directly or indirectly use a false indication of the source of the goods or the identity of the producer, manufacturer, or merchant must be seized on importation into Paris Member countries or in the countries where the unlawful act occurred or in the country into which the goods were imported.

Paris Convention countries must provide measures to permit federations and associations representing interested industrialists, producers, or merchants to take action in the courts insofar as the law of the country allows such action. If seizure on importation is not permitted under domestic law, the country must instead prohibit the importation or seize the goods inside the country. If neither seizure on importation nor prohibition of importation nor seizure inside the country is permitted, then Member countries must provide such actions and remedies as are available to nationals under the country's domestic law. These provisions are made applicable under the TRIPS Agreement to all WTO Members and are strengthened with regard to importation of infringing goods.

Provisions relating to false indications of origin must also permit any producer, manufacturer, or merchant, whether a natural person or legal entity, to act as an interested party provided such person is engaged in the production or manufacture of or trade in such goods and is established either

in the locality falsely indicated as the source, or
in the region where such locality is situated, or
in the country falsely indicated, or
in the country where the false indication of source is used.

Trade names

A *trade name* is the name or designation that identifies a legal entity or a natural person. A company's trade name may or may not be the same as its legal name, *i.e*., the same as its corporate name or the name of a partnership or other owner of the business. An enterprise may be *doing business as* [its trade name], even though the real party in interest may be an individual owner or other legal entity. A trade name may be the subject of a

[54] Paris Convention Article 9(1).
[55] Paris Convention Article 9(2).

commercial registration; however, Paris Convention Article 8 requires that trade name protection be provided without the requirement of registration.

A trade name should also be distinguished from a trademark or service mark, which must be used on goods or in connection with services in order to be registrable, while a trade name identifies the business and may or may not relate to services. A trade name may in some cases function as a trademark or service mark but will not do so in all cases. A trade name can infringe a trademark, and a trademark can infringe a trade name. The same principles should be applied to determining infringement of trade names as in determining infringement of a mark.

Trade dress

Trade dress is the packaging of a product that contributes to its overall commercial impression in the market. This generally includes not only the marks that may appear on packages but the form of the package itself and any designs or lettering contained on the packaging. Developing distinctive trade dress is an important element of a marketing program since an easily recognizable package aids consumers in locating a particular product.

Trade dress infringement is an act of unfair competition. Consumers are harmed by trade dress infringement because they are misled as to the source or nature of the goods they are purchasing. Protecting against the misleading or confusing imitation of trade dress is important for the protection of consumers. Even sophisticated consumers may be misled by imitative trade dress, but consumers who cannot read, or who cannot read the language of the label, are particularly vulnerable to deception.

Trade dress infringement is a separate offense from trademark infringement. If one company markets goods in packages that are identical to the distinctive packaging of another company except that the packages bear a different mark, there would be no claim for trademark infringement, even though the consumer would be deceived. One important limitation on rights in trade dress is that the element in which rights are claimed may not be essentially dictated by function. For example, a specially designed crate for strawberries may be distinctive of a particular producer, but if that design confers some practical benefit, such as being sturdier, the owner may not prohibit others from adopting those functional elements except to the extent provided by a patent or industrial design.

Geographical indications

Geographical indications, also called *appellations of origin*, identify a good as originating in the territory of a particular country, region or locality, and where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin, including natural and human factors.

WTO Members are obligated under TRIPS Article 22.2 to provide the legal means for interested parties to prevent:

> the use of any means in the designation or presentation of a good that indicates or suggests that the good in question originates in a geographical area other than the true place of origin in a manner which misleads the public as to the geographical origin of the good;
>
> any use that constitutes an act of unfair competition within the meaning of Article 19*bis* of the Paris Convention (1967).

WTO Members are also required to refuse or invalidate the registration of a trademark that contains or consists of a geographical indication with respect to goods not originating in the territory indicated, if use of the indication in the trademark for such goods in that Member is of such a nature as to mislead the public as to the true place of origin.[56]

These same provisions likewise apply to a geographical indication that, although literally true as to the territory, region or locality in which the goods originate, falsely represents to the public that the goods originate in another territory.[57] Additional protection is required for geographical indications for wines and spirits. It is not permissible to use geographic indications or to register a trademark identifying wines or spirits that consist of a geographic indication even where the true origin of the goods is indicated or the geographic indication is used in translation or accompanied by expressions such as "kind," "type," "imitation," or the like.

Some transition provisions are specified for WTO Members to extend this protection in the cases of the same or related goods or services where the geographic indications have been in continuous use for at least ten years

[56] TRIPS Article 22.3.
[57] TRIPS Article 22.4.

preceding the date of the Ministerial Meeting concluding the Uruguay Round of Multilateral Negotiations or in good faith preceding that date. These provisions also do not apply where the term is the common term in the language of the country for the item, or where a person uses in the course of trade his own name or that of a predecessor in business, providing that such use is not in such a manner as to mislead the public, or where geographic indications have fallen into disuse or cease to be protected in that country.

Distinguishing among the types of protection

Trademarks, service marks, and other types of marks identify the origin of goods or services, or convey information about their qualities. Geographical indications identify the geographic region from which goods originate, or convey information about their qualities based on that origin. Trade names identify the business entity that provides goods or services. A commercial registration identifies the responsible legal entity. In some cases, these different forms of intellectual property may overlap.

> **Example 1:** Kraft produces a cheese product marketed as Velveeta Cheese. Kraft is the trade name of the company, which is part of General Foods Corporation (the corporate name, which would be subject to a commercial registration), and Velveeta is the trademark that identifies that particular type of cheese. Kraft also produces and markets a yellow cheese that looks similar to Cheddar cheese, but it is not marketed as Cheddar, because Cheddar is a region in England known for a particular quality of cheeses and is therefore protected as an appellation of origin.

A certification mark is not the same as a geographical indication. A geographical indication requires no certification, has not owner, and is not subject to the control of another party.

Obviously, many people can produce items from a particular region, so the right to use an appellation of origin is not an exclusive right. On the other hand, if more than one person uses the same mark for the same goods, the mark will not fulfill its function of identifying the source of the goods (i.e., the manufacturer), so the trademark right must be exclusive to one owner. In Egypt, trademark rights will belong to the first person to register the mark, except 1) where another registrant has prior rights based on a foreign registration or 2) where the mark is a well-known mark entitled to be

protected even without registration. Protection of a trade name should follow similar rules in order to avoid causing confusion as to the source of goods or services.

When different businesses adopt or seek to register similar marks, the Trademark Office will consider whether a mark is registrable, i.e., whether it should be accorded protection, and the courts will evaluate claims of infringement. Both questions largely depend on whether the particular mark will tend to cause confusion in the market. In making this determination, it is appropriate to consider such factors as the similarity of the marks; whether the mark would apply to related goods or services, or whether the goods or services are sold in the same channels of commerce; and the circumstances of the sales or likely sales, including the sophistication of the buyers. Ordinarily, minor differences - in spelling, pronunciation, or punctuation, for example - will not be sufficient to distinguish one mark from another. In evaluating likelihood of confusion, the Trademark Office and the courts should principally look to the overall commercial impression and not merely at precise details of the marks. These same principles should be used to evaluate whether one mark infringes another and, since a mark can infringe a trade name or the reverse, to evaluate possible infringement of a trade name by a mark, or the reverse. In the example above, it would be to the detriment of the public and of the proprietor of the *mark Velveeta* if another company adopted the *trade name Velveeta* and marketed cheese, even if that company used a different mark on its cheese packages.

Choosing the right form of protection

In some cases, a business may claim more than one form of protection for its packaging. Some lines of cosmetics, notably those of the Avon Corporation, feature decorative and distinctive bottles and jars, which are often collectibles. In these cases, the containers may be protected both by an industrial design and through trade dress. There are also ways in which trade dress protection may overlap trademark protection, and a company may own a variety of forms of industrial property. Sometimes, only one form of protection is called for, while in other cases, a single item may have the benefit of several forms of protection.

> **Example 2:** The Coca-Cola Bottling Company is the trade name and legal entity that packages a variety of beverage products, one sold under the trademark Coca-Cola and Coke, another sold under

the trademark Sprite. The company also claims trademark rights in the distinctive Coca-Cola bottle and in the slogan, "Coke - it's the real thing." The beverage Coca-Cola is not the subject of a patent, but its formula is protected as a trade secret.

Example 3: General Motors Corporation produces several lines of vehicles, including Cadillac, Buick, Oldsmobile, Chevrolet, and Jeep; these serve both as trade names, to identify the seller, and as trademarks, to identify the goods. The various models also have names that serve as marks, such as Camaro, or Wrangler. General Motors, also known by its initials GM, is a trademark for the vehicles, the trade name under which the company does business, and the legal corporate name that would be the subject of a commercial registration. The design of the vehicle often includes a number of patented inventions, such as a fuel injection system, or a type of suspension, or shock-absorbing body design. Elements of the design are also often decorative, and these features - such as the shape of an automobile body, or the arrangement of instruments on its front panel - may be the subject of industrial design protection.

In each case, the goal of attorneys should be to help clients select the best form or forms of protection and use them in ways that contribute to the value of their businesses.

INTERNATIONAL STANDARDS OF INTELLECTUAL PROPERTY PROTECTION

Egypt has statutory systems for granting rights to inventors, proprietors of marks, creators of industrial designs and authors. Systems for securing rights to these forms of intellectual property are administered by offices located in the Ministries of Scientific Research, Culture, and Trade and Supply. In general, each nation is free to determine its own intellectual property law. However, most nations have joined together in treaties or other international agreements to set standards for the manner in which various types of intellectual property will be treated in the member nations.

Sources of International Standards of Intellectual Property Protection

Paris Convention	Patents, Trademarks, Trade Names, Industrial Designs, Repression of Unfair Competition
Berne Convention	Copyright
Rome Convention	Neighboring Rights (performers and producers)
IPIC Treaty	Integrated Circuits
UPOV	Plant Varietals
WTO/TRIPS/GATT	Comprehensive standards

Whether to adhere to a treaty or other international agreement is a decision made by each nation, but once that decision is made, members are obligated to conform their own national laws and practices to the provisions of the treaty or international agreement.

Treaties and other international agreements in the field of intellectual property cover a variety of areas, ranging from substantive intellectual property law to highly detailed procedures for granting or enforcing rights. Practitioners in the field of intellectual property should be familiar with the sources of international norms of intellectual property law and practice and with the treaties to which Egypt is a party.

The most basic norms or standards[58] of intellectual property are found in the oldest conventions, the Paris Convention for the Protection of Industrial Property and the Berne Convention for the Protection of Literary and Artistic Works.

Paris Convention

The two most important standards set by the Paris Convention are the right of national treatment (Article 2) and the right of priority (Article 4). The right of national treatment obligates each country to which the Convention applies ("countries of the Union") to accord to the nationals of all other countries of the Union treatment no less favorable than the treatment it accords to its own nationals. This right must be afforded without a requirement of domicile or establishment in the country where protection is claimed. TRIPS Article 3 extends the right of national treatment to nationals of countries that are not members of the Paris Convention where such person are domiciliaries of, or have a real and effective industrial or commercial establishment in, the territory of country of the Union. The Paris Convention contains other important provisions, and the following discussion is not exhaustive.

The right of priority permits applicants to claim the benefit of a filing date (called the *priority* filing date) in one Paris country with regard to applications filed in another country of the Union within the applicable period. This permits the applicant to avoid the effects of actions that may have occurred subsequent to the priority filing date. Without this right, virtually no patent applications could be filed in more than one country. Any filing that is equivalent to a regular national filing under the domestic legislation of a Paris country or under bilateral or multilateral treaties between countries of the Union is sufficient to give rise to the right of priority.

To take advantage of the right of priority, an applicant must make a declaration indicating the date of the filing on which the priority claim is based and the country in which it was made. Countries may require the applicant to produce a copy of the application, certified as correct by the authority in which it was filed and a certificate from that same authority

[58] The terms *norm* or *standard* are used here interchangeably to indicate provisions to which members must conform. These are not standards in the sense that term is used in other contexts such as standards of the International Standards Organization (ISO).

showing the date of filing, and a translation. However, no other formalities, such as legalization, may be required. If a Paris country requires the filing of a copy of the application on which priority is based, the applicant must be allowed at least three months to produce such application, without requiring a fee. The priority periods are twelve months for patents and utility models and six months for trademarks and industrial designs.

Intellectual Property Conventions to Which Egypt is a Party

- Convention Establishing the World Intellectual Property Organization
- Paris Convention for the Protection of Industrial Property
- Berne Convention for the Protection of Literary and Artistic Works
- Madrid Agreement for the Repression of False or Deceptive Indications of Source of Goods
- Madrid Agreement Concerning the International Registration of Marks
- Hague Agreement Concerning the International Deposit of Industrial Designs
- Strasbourg Agreement Concerning the International Patent Classification
- Convention for the Protection of the Producers of Phonograms Against Unauthorized Duplication of Their Phonograms
- Nairobi Treaty on the Protection of the Olympic Symbol
- Treaty on Intellectual Property in Respect of Integrated Circuits
- Patent Cooperation Treaty

One important question is the "prior art" effect of an application that is filed first in another country and that claims "priority" to the application in that other country as provided by Paris Convention Article 4. In the United States, such an application is only considered prior art as of the date the application was filed in the United States. In Europe and Japan, the practice is to consider the application as prior art as of the priority filing date in the other country.

Article 4*bis* provides that patents applied for in the various Paris countries shall be independent of patents obtained for the same invention in other countries, whether Paris countries or not, and that patents obtained with the benefit of priority shall have a duration equal to that which they would have

had if they had been applied for or granted without the benefit of priority. Although neither the Paris Convention nor the TRIPS Agreement specifically addresses the conditions under which a country can hold that intellectual property rights are exhausted, this Article may, in effect, preclude conditioning exhaustion in one country on exhaustion in another. Article 4*ter* provides that the inventor shall have the right to be mentioned as such in the patent.

Article 4*quater* prohibits countries from refusing to grant a patent or invalidating patents on the grounds that the sale of the patented product, or product made by a patented process, is subject to restrictions or limitations contained in domestic law. TRIPS Article 27.1 permits WTO Members to exclude certain inventions from patentability if the Member must prevent the commercial exploitation of the invention to protect the *ordre public* or morality. However, a prohibition in the national law on exploitation of the invention is not sufficient to justify invoking the exception.

Can WTO Members provide forfeiture for abuse?

TRIPS Article 2 requires WTO Members to comply with certain provisions of the Paris Convention, including Article 5A. That is, Members must fulfill the *obligations* of Paris Article 5A. However, Paris Convention Article 5A reserves certain rights for countries of the Union, and TRIPS Article 2 does not preserve those reserved rights. In fact, when they acceded to the TRIPS Convention, Paris countries that are also TRIPS Members agreed to limit their rights reserved under the Paris Convention. These countries also agreed

- to impose the safeguards of TRIPS Article 31 with respect to compulsory licenses issued pursuant to Paris Article 5A.
- in TRIPS Article 27.1 that importation would satisfy any requirement to "work" the invention in a Member, and
- in TRIPS Articles 27.1 and 29 further to limit the circumstances when a Member could invoke forfeiture of a patent.

Taking these provisions together, it can be argued that WTO Members cannot provide forfeiture for abuse.

Article 5 limits the ability of Paris countries to provide for forfeiture, compulsory licensing, or cancellation of various forms of industrial property. Paris Article 5A reserves for the countries of the Union the right to issue compulsory licenses to prevent the abuse of patent rights. Failure to "work" (*i.e.*, failure to exploit) the claimed invention is cited as an example of abuse.

Countries of the Union are not required to grant compulsory licenses to prevent abuse of patent rights, nor are they required to consider failure to work as an abuse of the patent right. However, if a country of the Union does consider failure to work an abuse, Paris Article 5A prohibits the application for a compulsory license as a remedy until a minimum of three years after the date the patent is granted and a minimum of three years after the date the patent application was filed. It also requires that a country granting a compulsory license for failure to work or insufficient working must impose other safeguards, such as permitting the patent owner to justify the nonworking, and making the compulsory license nonexclusive and nontransferable even in the form of the grant of a sub-license, except with that part of the enterprise or goodwill which exploits such license. Moreover, Paris Article 5A reserves for the countries of the Union the right to provide for forfeiture patent rights to remedy abuses, but only when the issuance of a compulsory license was shown to be an insufficient remedy and then only two years after the issuance of the first compulsory license.

Provisions on compulsory licensing and forfeiture also apply to utility models. Article 5B prohibits forfeiture of industrial designs for any reason, including failure to work or importation of articles corresponding to the protected industrial design. Article 5C prohibits countries of the Union from requiring marking of the patent, utility model, or trademark, or deposit of the industrial design, on the goods as a condition of recognition of the right to protection.

Article 5*bis* specifies that a grace period of not less than six months must be allowed for the payment of fees required to maintain industrial property rights in effect, subject to a surcharge if provided by domestic legislation, and that Paris countries have the right to provide for restoration of patents that have lapsed for non-payment of fees.

Article 5*ter* provides a limited exception to patent protection for patented devices used on board or forming part of vessels that temporarily or accidentally enter the territorial waters of a Paris country, provided that

such devices are used exclusively for the needs of the vessel, as well as for devices used in construction or operation of aircraft or land vehicles when such aircraft o land vehicles temporarily or accidentally enter the territory of the country of the Union.

Article 5*quater* provides that the rights of the owner of a patented process with regard to products made by that process will be the same for products imported into the country as provided under domestic law for products manufactured in that country. Article 5*quniquies* requires Paris countries to protect industrial designs.

Article 6 describes the conditions for the filing and registration of trademarks. In general, these are subject to the domestic legislation of the country, but an application filed by a national of a Paris country may not be refused, nor registration invalidated, on the ground that filing, registration, or renewal has not been effected in the country of origin. A mark registered in one country must be regarded as independent of marks in other countries, including the country of origin.

Article 6*bis* requires Paris countries to refuse or cancel registration and prohibit the use of a trademark that constitutes a mark that is well-known in the country of registration or use as already being the mark of another person, for the same or similar goods. This prohibition applies equally to a reproduction, imitation, or translation liable to create confusion. A period of at least five years from the date of registration must be allowed for requesting cancellation of such a mark, but no time limit can be fixed for requesting the cancellation or prohibition of the use of well-known marks registered or used in bad faith. These provisions are strengthened by TRIPS Article 16.2.

Article 6*ter* similarly prohibits the registration or use as marks or parts of marks, the armorial bearings, flags, and other State emblems of the countries that are Paris countries, and of the official signs or hallmarks adopted by them to indicate control or warranty. Similar provisions apply to the armorial bearings, flags, other emblems, or names of international intergovernmental organizations of which one of more Paris countries are members (other than those that are the subject of other international agreements intended to ensure their protection).

Article 6*quater* sets conditions on the assignment of marks. These provisions are largely superseded by TRIPS Article 21, which provides the

owner of a registered mark with the right to assign the mark with or without transferring the business to which it belongs.

Article 6*quinquies* provides certain benefits only for trademarks that are registered in their country of origin. Under this Article, every trademark duly registered in the country of origin shall be accepted for filing and protected "as is" (in its original form, "*telle quelle*" in the French version)[59] in the other Paris countries, except where they:

- would infringe rights of third parties in the country where protection is claimed;
- are not distinctive, or consist exclusively of signs or indications that may serve in trade to indicate the kind, quality, quantity, intended purpose, value, place of origin, of the goods, or the time of production, or have become customary in the current language or bona fide and established practices of the trade of the country where protection is claimed; or
- are contrary to morality or public order and of such a nature as to deceive the public.

The country in which protection is requested may require the applicant to produce a certificate of registration in the country of origin, issued by the competent authority, but no authentication can be required for this certificate. The "country of origin" is any Paris country where the applicant has a real and effective industrial or commercial establishment or, if none, the Paris country where the applicant is domiciled, or if the applicant has no domicile in a Paris country but is a national of a Paris country, then the country of which the applicant is a national.

In determining whether a mark is eligible for protection, factual circumstances must be taken into consideration, particularly the length of time the mark has been in use. A mark must not be refused registration in Paris countries solely because it differs from the mark protected in the country of origin only in respect of elements that do not alter its distinctive character and do not affect its identity in the form in which it has been registered in the country of origin. This provision is particularly important to applicants whose marks are used in different languages in different countries.

[59] *See*, Bodenhausen, *Guide to the Application of the Paris Convention*, BIRPI (now WIPO) (Geneva 1968), at 111.

In Article 6*sexies*, Paris countries undertake to protect service marks but are not required to register them. That deficiency was remedied by TRIPS Article 15, which requires WTO Members to register service marks if they meet the other criteria for registration. Although Paris countries were not specifically required to provide the right of priority to service marks, TRIPS Article 62.3 applies the provisions of Paris Convention Article 4 *mutatis mutandis* to service marks, thus making the right of priority available for service marks as well as for trademarks.

Article 6*septies* addresses the situation where an agent or representative obtains registration in the agent's or representative's own name without permission of the proprietor of the mark.

Article 7 provides that the nature of the goods to which a trademark is to be applied shall not form an obstacle to the registration of the mark. Article 7*bis* obligates Paris countries to protect collective marks, including marks of associations that are not established in, or constituted according to the law of, the country where protection is sought. Article 8 obligates Paris countries to protect trade names without the obligation of filing or registration, whether or not the trade name forms part of a trademark.

Article 9 requires Paris countries to seize upon importation all goods unlawfully bearing a trademark or trade name that is entitled to legal protection. The same requirement of seizure exists in the country where the mark was affixed. If the domestic law does not provide for seizure, then the authorities must prohibit importation or seize the goods inside the country or, if these actions are not permitted, must take such action as are permitted.

Article 10 makes the same provisions applicable in cases of direct or indirect use of a false indication of the source of the goods or the identity of the producer, manufacturer, or merchant. Both Articles describe which parties are entitled to bring a complaint.

Article 10*bis* obligates Paris countries to assure protection against unfair competition. Unfair competition is defined as any act of competition contrary to honest practices in industrial or commercial matters. In particular, Members are obligated to prohibit acts likely to create confusion with the establishment, goods, or industrial or commercial activities of a competitor; false allegations in the course of trade of such a nature as to discredit the establishment, goods, or industrial or commercial activities of

a competitor; and indications or allegations in trade that are likely to mislead the public as to the nature, manufacturing process, characteristics, suitability for their purpose, or the quantity of the goods. This Article lays a foundation for TRIPS Article 39.

Article 10*ter* obligates Paris countries to assure appropriate legal remedies effectively to repress all the acts referred to in Articles 9, 10, and 10*bis*.

Article 11 provides for temporary protection for patentable inventions, utility models, industrial designs, and trademarks, under certain limited circumstances. Article 12 requires each country to establish a special industrial property service for filing patents, utility models, industrial designs, and trademarks. Finally, Article 28 provides that disputes regarding interpretation of the Paris Convention must be brought before the International Court of Justice.

Berne Convention

The Berne Convention establishes a high level of copyright protection for works of authorship, which are defined broadly. Countries to which the Berne Convention applies (Berne countries) must provide a minimum term of copyright protection, usually the life of the author plus fifty years, to works first published in a member nation or published or unpublished works of persons who are nationals or residents of a member nation. Unlike patents and trademarks, Berne countries may not require any formalities as a condition for obtaining such protection.

Article 2 of the Berne Convention defines "literary and artistic works" to include:

> every production in the literary, scientific and artistic domain, whatever may be the mode or form of its expression, such as books, pamphlets and other writings; lectures, addresses, sermons and other works of the same nature; dramatic or dramatico-musical works; choreographic works and entertainments in dumb show; musical compositions with or without words; cinematographic works to which are assimilated works expressed by a process analogous to cinematography; works of drawing, painting, architecture, sculpture, engraving and lithography; photographic works to which are assimilated works expressed by a process analogous to photography; works of applied art; illustrations,

maps, plans, sketches and three-dimensional works relative to geography, topography, architecture or science.

Also under Article 2, Berne countries are permitted to require that works in general or any specified categories of works will not be protected unless they have been fixed in some material form. Translations, adaptations, arrangements of music and other alterations of a literary or artistic work are likewise protected as original works without prejudice to the copyright in the original work. Similarly, collections of literary or artistic works such as encyclopedias and anthologies which, by reason of the selection and arrangement of their contents, constitute intellectual creations, are protected as such, without prejudice to the copyright in each of the works forming part of such collections. The protection to be granted to official texts of a legislative, administrative and legal nature, and to official translations of such texts, is left to domestic legislation. The works mentioned in Article 2 must be protected in all Berne countries, for the benefit of the author and his or her successors in title.

Berne countries are permitted to determine by domestic legislation the extent of the application of copyright laws to works of applied art and industrial designs and models, and the conditions under which such works, designs and models are to be protected. Works that are protected in the country of origin solely as designs and models are entitled only to such special protection in another Berne country as that country grants to designs and models. However, if that country grants no special protection for designs and models, it must protect such works as artistic works. This requirement is subject to the provisions of Berne Article 7(4), which allows Berne countries to determine by domestic legislation the term of protection for photographic works and of works of applied art in so far as they are protected as artistic works, provided that such period is at least twenty-five years from the making of such a work.

Article 2 specifies that protection under the Berne Convention does not apply to news of the day or to miscellaneous facts having the character of mere items of press information. Article 2*bis* states that countries may provide in their domestic legislation for certain limitations on the protection required, for political speeches and speeches delivered in the course of legal proceedings; the conditions under which lectures, addresses and other works of the same nature which are delivered in public may be reproduced by the press, broadcast, communicated to the public by wire and made the subject of public communication for purposes of providing information. In

any event, the author must have the exclusive right to make a collection of such works.

Article 3 specifies that the protection of the Berne Convention extends to published or unpublished works of authors who are nationals of a Berne country; to works first published in a Berne country or simultaneously in a Berne country and a non-Berne country, even if the authors are not nationals of a Berne country. Authors who have their habitual residence in a Berne country are treated as nationals.

Article 3(3) defines the term "published works." The following are specifically stated not to constitute publication: the performance of a dramatic, dramatico-musical, cinematographic or musical work; the public recitation of a literary work; the communication by wire or the broadcasting of literary or artistic works; the exhibition of a work of art; and the construction of a work of architecture, Article 3(5) clarifies how the term of protection is measured.

Article 4 makes the Berne Convention applicable to cinematographic works, works of architecture and certain artistic works.

Article 5 specifies that no formalities may be required to obtain the protection provided under the Berne Convention. Thus, unlike patent and trademark systems, applicants may not be required to submit an application or register a work as a condition of obtaining copyright.

Article 6*bis* provides for the protection of moral rights. Moral rights must be independent of the author's economic rights and belong to the author even after transfer of economic rights. This nature of moral rights is discussed more fully in the chapter on Copyright. Except as specifically provided in Article 6*bis*, the protection of moral rights is left to the domestic legislation of each Berne country.

Article 7 requires a term of at least the life of the author plus 50 years, in most cases, or in the case of cinematographic works, or anonymous or pseudonymous works where the author is not known, a term of at least 50 years from publication. Article 7*bis* specifies that the term of protection for works of joint authorship is to be measured from the death of the last surviving author.

Article 8 provides that authors of literary and artistic works protected by the Berne Convention will enjoy the exclusive right of making and of authorizing the translation of their works throughout the term of protection of their rights in the original works.

Article 9 provides that authors of literary and artistic works will have the exclusive right of authorizing the reproduction of their works, in any manner or form. Exceptions may be permitted under domestic law in certain cases, provided that such reproduction does not conflict with a normal exploitation of the work and does not unreasonably prejudice the legitimate interests of the author. Any sound or visual recording is to be considered a reproduction for purposes of the Berne Convention.

Article 11 provides similar rights for authors of dramatic, dramatico-musical and musical works. Authors of such works have the exclusive right to authorize the public performance of their works, by any means or process, and any communication to the public of the performance of their works, and authors of dramatic or dramatico-musical works likewise have the right of translation.

Article 11*bis* provides that authors of literary and artistic works shall enjoy the exclusive right of authorizing the broadcasting of their works or their communication to the public by any other means of wireless diffusion of signs, sounds or images; any communication to the public by wire or by rebroadcasting of the broadcast of the work, when the communication is made by an organization other than the original one; and the public communication by loudspeaker or any other analogous instrument transmitting, by signs, sounds or images, the broadcast of the work. Such protection may be determined under domestic legislation.

Article 11*ter* provides that authors of literary works have the exclusive right to authorize the public recitation of their works, by any means or process, any communication to the public of the recitation of their works, and the right of translation.

Article 12 provides that authors of literary or artistic works will enjoy the exclusive right of authorizing adaptations, arrangements and other alterations of their works.

Article 14 similarly provides that authors of literary or artistic works have the exclusive right of authorizing the cinematographic adaptation and

reproduction of their works, and the distribution of the works thus adapted or reproduced, and the public performance and communication to the public by wire of the works adapted or reproduced.

Article 10 clarifies what uses of works may be made without consent of the author. These include:

- quotations from a work that has already been lawfully made available to the public, provided that the making of quotations is compatible with fair practice and their extent does not exceed that justified by the purpose, including quotations from newspaper articles and periodicals in the form of press summaries, and

- use, to the extent justified by the purpose, of literary or artistic works by way of illustration in publications, broadcasts or sound or visual recordings for teaching, provided such utilization is compatible with fair practice.

provided that where such use is made of works, the quotations or use must mention the source and the name of the author if it appears thereon.

Article 10*bis* permits countries to authorize in their domestic legislation certain other uses of works, including archiving by broadcasting organizations of ephemeral recordings made by the broadcasting organization's own facilities and used for its own broadcasts.

Article 13 addresses possible limitations of the right of recording musical works and lyrics. Recordings made in accordance with Article 13 and imported without permission from the parties concerned into a country where they are treated as infringing recordings are liable to seizure. Article 16 provides for seizure of infringing copies of a work in any Berne country where the work enjoys legal protection, as well as seizure of reproductions coming from a country where the work is not protected or has ceased to be protected.

Article 14*bis* addresses the protection of cinematographic works, including such issues as dubbing, subtitling, and broadcasting, and the authors of scenarios, dialogues and musical works created for the making of the cinematographic work.

Article 14*ter* provides that the author has a right to an interest in resales of original works of art and original manuscripts of writers and composers. This right is inalienable. However, it is available only if legislation in the country to which the author belongs so permits, and to the extent permitted by the country where this protection is claimed.

Article 15 addresses the issue of what is sufficient to institute infringement proceedings. The author of a literary or artistic work is entitled to be regarded as such, in the absence of proof to the contrary, and to bring suit for infringement, if the author's name appears on the work in the usual manner. A pseudonym is sufficient to establish authorship if the pseudonym adopted by the author leaves no doubt as to his or her identity. Similarly, the person or company whose name appears on a cinematographic work in the usual manner is, in the absence of proof to the contrary, presumed to be the maker of the work.

In the case of anonymous and pseudonymous works where the pseudonym does not establish the name of the author, the publisher whose name appears on the work is, in the absence of proof to the contrary, deemed to represent the author, and in that capacity is entitled to protect and enforce the author's rights until such time as the author reveals his or her identity and establishes the author's own claim to authorship of the work.

Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement)

In view of the importance of intellectual property to international trade, the past several decades have seen efforts to establish more effective and more uniform intellectual property systems. One of the most important of these was the conclusion of the Agreement on Trade-Related Aspects of Intellectual Property Rights as part of the Uruguay Round of Multilateral Trade Negotiations that established the World Trade Organization (WTO). This Agreement, referred to as the TRIPS Agreement, not only established standards for protection that must be adopted by all WTO Members, it set forth procedures that Members must have available to enforce intellectual property rights. It also contains some obligations related to the administration of intellectual property systems.

An outline of the provisions of the TRIPS Agreement follows. In most areas, TRIPS standards supplement rather than replace the standards of other intellectual property conventions. Most of the substantive obligations

of the Berne Convention, for example, have been incorporated by reference into the TRIPS Agreement by TRIPS Article 9 and apply to all WTO Members, even if those Members have not acceded to the Berne Convention. Similarly, most substantive obligations of the Paris Convention are incorporated by reference in the TRIPS Agreement by TRIPS Article 2.

Many of the TRIPS provisions impose an obligation to provide a higher level of protection than that required by prior international agreements on intellectual property. In a few cases, the application of TRIPS standards overlaps the standards of intellectual property conventions, imposing dual obligations. An example of the latter situation is the requirement of national treatment.

Some agreements such as the North American Free Trade Agreement (NAFTA) may impose higher standards than the TRIPS Agreement on their Parties. Given the national treatment and most-favored nation requirements in the TRIPS Agreement, all WTO Members may benefit from these higher standards.

The following outline summarizes the provisions of the TRIPS Agreement.

1. General Principles

- *Nature of obligations*: WTO Members will accord the treatment provided for under TRIPS to the nationals of other WTO Members. Members are permitted but not obligated to provide protection that is more extensive than that provided under the TRIPS Agreement. (Article 1)

- *Intellectual property conventions*: Members are required to comply with certain substantive obligations of the Paris Convention. (Article 2) The TRIPS Agreement also clarifies that it does not derogate from obligations in certain provisions of existing intellectual property treaties, specifically the Paris Convention, the Berne Convention, the Rome Convention, and the Treaty on Intellectual Property in Respect of Integrated Circuits. [60]

[60] The TRIPS Agreement may derogate, however, from discretionary actions under the Paris Convention. Note that under Paris Article 5A, forfeiture is permitted, but there is no obligation to provide for forfeiture. TRIPS Article 27 precludes forfeiture or revocation other than for the criteria specified under TRIPS Article 27.

- *National treatment*: Each Member will accord treatment to the nationals of other WTO Members treatment no less favourable than that it accords to its own nationals with regard to the protection of intellectual property, subject to certain conditions. (Article 3)

- *Most-favored nation treatment*: Each Member will accord to the nationals of all Members any advantage, favour, privilege or immunity granted to the nationals of any other country. Exceptions are made for international agreements on judicial assistance or law enforcement of a general nature and not particularly confined to the protection of intellectual property; those granted in accordance with provisions of the Berne or Rome Conventions authorizing that the treatment be conditioned on treatment accorded in another country rather than on national treatment; neighboring rights not provided under the TRIPS Agreement; and acts deriving from prior international intellectual property agreements that have been notified to the TRIPS Council and where such measures do not constitute an arbitrary or unjustifiable discrimination against nationals of other WTO Members. (Article 4)

- *Exceptions*: TRIPS national treatment and most-favored nation treatment provisions do not apply to procedural requirements in certain WIPO agreements related to the acquisition or maintenance of intellectual property rights. (Article 5)

- *Exhaustion*: The issue of exhaustion of intellectual property rights is not subject to dispute settlement under the TRIPS Agreement. (Article 6)

- *Principles*: Members are free to adopt measures necessary to protect public health or vital sectors of economy, and measures to prevent abuse of intellectual property rights, provided that such measures are consistent with the provisions of the TRIPS Agreement. (Article 8)

2. Copyright and Related Rights

- *Relation to the Berne Convention*: Members must comply with Berne Convention Articles 1 - 21 and the Appendix. However, Berne Article 6*bis* (concerning moral rights) and rights deriving from that article are excluded from this requirement. (Article 9)

- *Computer programs and compilations*: Members must protect computer programs as literary works under the Berne Convention. Members must

also protect data bases in electronic form as compilations under their copyright laws. (Article 10)

- *Rental rights*: Members must provide copyright owners with a right to control the rental of copies of their copyrighted movies or computer programs, except in limited circumstances. (Article 11)

- *Term*: Berne Article 7 (made applicable to WTO Members by TRIPS Article 9) sets a minimum term of protection in various circumstances. TRIPS Article 12 provides that when the term of protection of a work, other than a photographic work or a work of applied art, is calculated on a basis other than the life of a natural person, the minimum term must be no less than 50 years from the end of the calendar year of authorized publication. If there is no authorized publication within 50 years from the making of the work, the minimum term must be 50 years from the end of the calendar year the work was made. (Article 12)

- *Rights*: WTO Members must confine any limitations on the rights provided to copyright owners (including those specified in the Berne Convention) to special cases which do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the right holder. (Article 13)

- *Sound recordings*: Members must provide for the right of performers to prevent the unauthorized recording of their performances or the reproduction of these recordings.[61] Phonogram producers must be given the right to authorize or prohibit reproduction of their phonograms. These rights must be provided for a minimum term of 50 years. The rental rights provisions applicable to computer programs under Article 11 are extended to phonograms, with an additional exception for countries that had in effect on 15 April 1994 a system of equitable remuneration for rental. WTO Members are permitted to invoke exceptions and reservations to the extent permitted by the Rome Convention but must also apply the provisions of Berne Article 18 (requiring the protection of works not yet in the public domain on the date of entry into force of that Convention), *mutatis mutandis*, to the rights of performers and producers of phonograms in phonograms. (Article 14)

[61]This practice is sometimes referred to as "bootlegging," and the recordings produced in this matter as "bootleg copies."

3. Trademarks

- *Definitions*: Trademarks are defined broadly as any sign, or any combination of signs, capable of distinguishing the goods or services of one undertaking from those of other undertakings. However, WTO Members may require visual perceptibility as a condition of registration of marks. (Article 15)

- *Goods and services*: The nature of goods and services must not pose an obstacle to registrability, *e.g.*, a WTO Member could not refuse to protect marks for alcoholic beverages even though alcoholic beverages were held in disfavor. (Article 15)

- *Publication*: Members must publish each mark, either before it is registered or promptly after it is registered and must provide third parties with the opportunity to request cancellation of the registration. Members are permitted but not required to provide an opportunity for opposition to registration of a mark. (Article 15)

- *Rights*: Members must grant the owner of a registered mark the exclusive right to prevent others from using identical or similar signs for identical or similar goods or services, where such use would result in a likelihood of confusion. In case of the use of an identical sign for identical goods or services, a likelihood of confusion must be presumed. These rights must not prejudice existing prior rights. (Article 16)

- *Well-known marks*: The provisions of the Paris Convention related to well-known marks are confirmed and made applicable to service marks. In determining whether a mark is a well-known mark, Members must take into account knowledge of the trademark in the relevant sector of the public, including knowledge in the Member concerned which has been obtained as a result of the promotion of the trademark. Members must also protect well-known marks where the goods and services are not similar but use of the mark would indicate a connection with the owner and the owner is likely to be damaged. (Article 16)

- *Exceptions*: Members are permitted to provide limited exceptions to the rights conferred by a trademark, such as fair use of descriptive terms, provided that such exceptions take into account the legitimate interests of the owner of the trademark and of third parties. (Article 17)

- *Term*: Members must provide a minimum term of 7 years for registration of marks, and registrations must be renewable indefinitely. (Article 18)

- *Cancellation of registration and restrictions on use*: Where use is required to maintain a registration, the registration can be cancelled after a minimum of three years' uninterrupted non-use of the mark, unless the owner shows valid reasons for non-use based on obstacles to that use. "Circumstances arising independently of the will of the trademark owner" and that constitute an obstacle to use of the mark must be recognized as valid reasons for non-use. Examples of valid reasons include import restrictions and government requirements. When the use of a mark is subject to the control of the mark's owner, use by others must be recognized as use of the mark for the purpose of maintaining the registration. (Article 19)

- *Special requirements on use of mark*: Members may not unjustifiably encumber the use of a mark by special requirements, such as use with another trademark, use in a special form, or use in a manner detrimental to its capability to distinguish the goods or services of one undertaking from those of other undertakings. (Article 20)

- *Licenses and assignments*: Marks must be assignable without the transfer of the business to which the mark belongs. Compulsory licensing of marks is prohibited. (Article 21)

4. Geographical Indications

- *Definitions*: Geographical indications are indications which identify a good as originating in the territory of a Member and where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin. (Article 22)

- *Rights*: Members must give interested parties the means to prevent any presentation of a good that indicates or suggests that the good in question originates in a geographical area other than the true place of origin if the use of the mark would mislead the public as to the origin of the goods. . (Article 22).

- Members must also give interested parties the means to prevent any use that constitutes an act of unfair competition. Also, trademark registrations must be refused or invalidated, either *ex officio* or if

requested by an interested party, if the trademark contains or consists of a geographical indication for goods not originating in the territory indicated and use of the indication in the trademark for such goods in that Member would mislead the public as to the true place of origin. (Article 22).

- *Scope of rights*: Members must prevent the use of designations for wines or spirits not originating in the place indicated, even where the true origin is indicated, the geographical indication is used in translation, or it is accompanied by expressions such as "kind", "type", "style", or "imitation." These requirements do no apply to customary names for goods or services or prejudice the right of a person to use his or her own name. There is no obligation to protect a geographical indication not protected in the country of origin. (Articles 23 and 24)

5. Industrial Designs

- *Scope*: Members must protect independently created industrial designs that are new or original, either through their copyright or industrial design law. Requirements for industrial designs protection must not unreasonably impair the opportunity to seek protection for textile designs. (Article 25)

- *Rights*: The owner has the right to prevent the making, selling, or importing of articles bearing or embodying a design which is a copy or substantially a copy of a protected design, where acts are done for commercial purposes. Limited exceptions are provided.

- *Term*: A minimum 10-year term must be available.

6. Patents

- *Patentability requirements and subject matter*: Patents must be available in all fields of technology, if invention is new, involves inventive step, and is capable of industrial application. Only limited exceptions are permitted, such as plants and animals (other than microorganisms). If a Member elects to exempt plants from patentable subject matter, that Member must provide effective *sui generis* protection for plants. (Article 27)

- *Non-discrimination*: Patents must be available, and patent rights enjoyable, without discrimination by place of invention, field of technology, or whether products are imported or locally produced. This provision strongly suggests that a patent owner can satisfy any working requirement by importation of the goods. (Article 27)

- *Rights*: Members must provide the patent owner with the right to exclude others from making, using, offering for sale, selling or importing for these purposes a patented product or direct product of a patented process and from using the patented process. Patent owners must also have the right to assign the patent, to transfer it by succession, and to conclude licensing contracts (Article 28)

- *Exceptions to rights*: Members may provide limited exceptions to the exclusive rights conferred by a patent, provided that these exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of legitimate interests of third parties. (Article 30)

- *Compulsory licenses:* Article 31 addresses certain uses of a patented invention without authorization of the right holder.[62] A government grant of permission to exercise some of the rights of the patent owner is referred to as a *compulsory license*.

  In addition to exceptions permitted under Article 30, Members may permit the use of an invention without the authorization of the patent owner if specified safeguards are observed. These safeguards apply both to use by the government and to use by third parties authorized by the government. Article 31 specifies the safeguards that must be met for the grant of a compulsory license in five different circumstances.

  If a compulsory license is granted on the ground of non-working, the following safeguards must be observed:

  - Each request for a compulsory license must be considered on its individual merits;

[62] The *right holder* is the person who holds exclusive rights under a patent. This obviously includes the patent owner but could refer, for example, to an exclusive licensee under the patent.

- The license be granted only after the proposed user has made reasonable efforts to obtain a voluntary license on reasonable commercial terms and conditions;
- The scope and duration of each license must be limited to the purpose for which it was authorized;
- The license must be non-exclusive;
- The use must be non-assignable, except with that part of the enterprise or goodwill which enjoys such use;
- The license must only be granted predominantly for the supply of the domestic market;
- The compulsory license must be subject to review and termination if and when the circumstances that led to its grant cease to exist and are unlikely to recur, with termination subject to adequate protection of the legitimate interests of the compulsory licensee;
- Adequate remuneration must be provided, taking into account the economic value of the compulsory license; and
- Judicial or other independent review by a higher authority must be available for the decision to grant the compulsory license and also for any decision relating to the remuneration provided.

Where the license is to address anticompetitive practices, the required safeguards are the same as in the case of nonworking except:

- There is no requirement that the proposed user first make reasonable efforts to obtain a voluntary license on reasonable terms and conditions;
- There is no requirement that the license be granted predominantly for the supply of the domestic market;
- The need to correct anti-competitive practices may be taken into account in determining the amount of remuneration; and
- Competent authorities must have the authority to refuse termination of the compulsory license if and when the conditions which led to the license are likely to recur.

Where use is authorized to enable exploitation of a dependent patent (i.e., a patent that cannot be exploited without infringement of another patent), the required safeguards are the same as in the case of nonworking and in addition:

- The invention claimed in the second patent must involve an important technical advance of considerable economic significance in relation to the invention claimed in the first patent;
- the owner of the first patent must be granted a cross-license to the dependent patent; and
- the compulsory license is non-assignable except with the assignment of the dependent patent.

Where use is authorized to meet a national emergency or other circumstances of extreme urgency, or in cases of public noncommercial use, the required safeguards are the same except:

- The requirement that the proposed user first make reasonable efforts to obtain a voluntary license on reasonable terms and conditions may be waived, in which case the right holder must, nevertheless, be notified as soon as reasonably practicable.

In the case of public non-commercial use, where the government or contractor, without making a patent search, knows or has demonstrable grounds to know that a valid patent is or will be used by or for the government, the required safeguards are the same as in the case of nonworking except:

- The right holder must be informed promptly of the proposed use.

Compulsory licenses for semi-conductor technology can be granted only for public non-commercial use or to remedy a practice determined after judicial or administrative process to be anti-competitive. (Article 31)

- *Term*: Members must provide a minimum 20-year term, measured from the filing date. (Article 33)

- *Revocation or forfeiture*: An opportunity for judicial review must be available for any decision of revocation or forfeiture of a patent.

- *Burden of proof*: In certain circumstances regarding infringement of process patents, the alleged infringer must have the burden of proof to show that its product was not made by the patented process. The legitimate interests of defendants in protecting their manufacturing and business secrets should be given due consideration. (Article 34)

7. Integrated Circuit Topographies or Layout-Designs

- *Relation to treaties*: Members must comply with certain articles of the Treaty on Intellectual Property in Respect of Integrated Circuits. (Article 35)

- *Rights*: Members must make unlawful the unauthorized importation, sale, or other commercial distribution of a protected layout-design, integrated circuit incorporating a protected layout-design, or an article incorporating such an integrated circuit only in so far as it continues to contain an unlawfully reproduced layout-design. Such acts are not unlawful if done without notice;[63] for stock on hand or ordered before notice, the owner must be paid a reasonable royalty equivalent to that which would be paid under a freely negotiated license. (Article 37)

- *Term*: Members must provide a minimum 10-year term from filing or first commercial exploitation anywhere in the world. (Article 38)

8. Protection of Undisclosed Information

- *Trade secrets*: Members must provide means for natural and legal persons to protect "secret" (not generally known) information from being disclosed to, acquired by, or used by others. (Article 39.2)

- *Test data*: Members must protect undisclosed data acquired as a condition of market approval for pharmaceutical or agricultural chemical products against unfair commercial use and against disclosure. This is generally understood to mean that Members cannot rely on test data from one party as a basis to approve the product of another party. (Article 39.3)

9. Anticompetitive Practices in Contractual Licenses

- *Restrictions on licensing*: Members may specify and prohibit licensing practices so long as they can be shown to have an adverse effect on

[63] Actual notice is not required. The standard is that the person performing or ordering the relevant acts did not know and had no reasonable ground to know, when acquiring the integrated circuit or article incorporating such an integrated circuit, that it incorporated an unlawfully reproduced layout-design.

competition and are consistent with the other provisions of the Agreement. (Article 40)

- *Consultations*: Members agree to enter into consultations with any other Member and cooperate where an intellectual property owner that is a national or domiciliary of one Member undertakes anti-competitive practices that violate the laws or regulations of another Member or are subject to proceedings on that basis. (Article 40)

10. Enforcement of Intellectual Property Rights

- *General obligations*: Procedures must be fair, equitable, not unnecessarily costly or complicated. Decisions must be available to parties without delay; preferably in writing and reasoned. Members must provide opportunity for judicial review of administrative decisions. (Article 41)

- *Civil judicial procedures for enforcement*: Procedures must be timely and sufficiently detailed to provide notice to defendants. Independent legal counsel must be allowed. Procedures must not be overly burdensome concerning personal appearance. All parties must be entitled to substantiate their claims through evidence. The courts must provide protection for confidential information. (Article 42)

- *Civil judicial procedures on evidence:* Judicial authorities must have the authority to order a party to present evidence. (Article 43) When a party refuses to provide necessary information, WTO Members may provide that the judicial authority can make a final determination on the basis of the information that has been presented. (Article 43) Members may provide for the authority to order an infringer to identify third persons involved in the production and distribution of the infringing goods or services and of their channels of distribution. (Article 47)

- *Remedies:* Injunctions against infringement, or declaratory judgments and adequate compensation, must be available. (Article 44) Adequate damages and expenses, including attorney fees, must be available. Members may authorize the award of profits or pre-established damages even where infringer did not know the action was infringing. (Article 45)

Members must give judicial authorities the authority to order the disposal of goods or implements outside the channels of commerce. (Article 46)

Indemnification of the defendant for abuse of enforcement procedures may be provided, including expenses and attorney's fees. Exemption from liability may only be provided for public authorities and officials where appropriate remedial measures where actions are taken or intended in good faith. (Article 48)

- *Administrative enforcement:* Requirements applicable to the administrative enforcement of intellectual property rights must conform with the same standards as those applicable to judicial enforcement. (Article 49)

- *Provisional measures*: Provisional measures must be available to prevent infringement and preserve evidence. Judicial authorities must also be given the authority to grant provisional measures *inaudita altera parte*. (Article 50)

- *Border Measures*: Members must provide procedures to enable a right holder with valid grounds for suspecting that the importation of counterfeit trademark or pirated copyright goods may take place, to lodge a written application with the competent authorities, administrative or judicial, for the suspension by the customs authorities of the release of such goods into free circulation. (Article 51)

  Members may enable such an application to be made in respect of goods that involve other infringements of intellectual property rights or corresponding procedures concerning the suspension by the customs authorities of the release of infringing goods destined for exportation from their territories. (Article 51)

  Both the importer and applicant must be promptly informed of any suspension, which must be based on adequate evidence, and the authorities must have the authority to require the complainant to post adequate security to protect the defendant and prevent abuse. (Articles 52 and 54)

  Strict procedural requirements, including time limits, must be observed with regard to the suspension of goods. (Article 55)

11. Acquisition and Maintenance of Intellectual Property Rights and Related Inter Partes Procedures

- *Procedures*: Members may require compliance with reasonable procedures as a condition of acquiring or maintaining rights in trademarks, geographical designations, patents, industrial designs, or layout designs. (Article 62.1)

- *Speed*: Where acquisition of an intellectual property right depends on grant or registration, Members must assure that procedures allow the right to be acquired promptly so as to avoid curtailing the term. (Article 62.2)

- *Service marks*: Article 4 of the Paris Convention (right of priority) applies to service marks. (Article 62.3)

- *Conduct of procedures*: Procedures concerning acquisition or maintenance of an intellectual property right, and those relating to *inter partes* procedures such as opposition, revocation, or cancellation, must be fair and equitable and not unnecessarily complicated or costly. Decisions on the merits must be in writing and reasoned and must be based only on evidence on which the parties had an opportunity to be heard. Decisions must be made available without delay at least to the parties to the proceedings. (Article 62.4)

- *Review*: Judicial or quasi-judicial review must be available for final administrative decisions; not required in cases of unsuccessful opposition or administrative revocation if grounds for such procedures can be the subject of invalidation. (Article 62.5)

12. Dispute Prevention and Settlement

- *Transparency*: Laws, regulations, and final judicial decisions and administrative rulings of general application concerning the availability, scope, acquisition, enforcement and prevention of abuse of intellectual property rights must be published or, if publication is not practicable, must be made publicly available, in a national language in such a manner as to enable governments and right holders to become acquainted with them. Bilateral and multilateral agreements must also be published. (Article 63.1)

- *Notification*: Members must notify the Council for TRIPS of laws and regulations concerning availability, scope, acquisition, enforcement and prevention of abuse of intellectual property laws. (Article 63.2)

- *Requests for information*: Members must supply each other, on written request, with information concerning laws, regulations, and final judicial decisions and administrative rulings of general application on the availability, scope, acquisition, enforcement and prevention of abuse of intellectual property rights. No requirement exists to furnish confidential information that would impede law enforcement or be contrary to public interest or prejudice legitimate commercial interests. (Article 63.3 and 63.4)

- *Dispute settlement*: The GATT Dispute Settlement Understanding applies to the TRIPS Agreement.

13. Transitional Arrangements

- *Transition period:* At this point, Members must comply with all obligations except (1) developing countries may delay until 1 January 2005 implementation of product patent protection for subject matter not protected on 1 January 2000, and (2) least developed countries may delay implementations of most provisions until 1 January 2005 and pharmaceutical product patent protection until 1 January 2016.[64] No changes are permitted during a transition period that would result in a lesser degree of consistency with the Agreement. (Article 65).

- *Incentives and technical assistance*: Developed country Members must provide incentives to enterprises and institutions in their territories to promote and encourage technology transfer to Members that are least developed countries. Developed country Members shall provide, on request and on mutually agreed terms and conditions, technical and financial cooperation in favor of developing and Members that are least developed countries, including: assistance in the preparation of laws and regulations, and support regarding establishment or reinforcement of

[64] Declaration on the TRIPS Agreement and Public Health para. 7, WT/MIN(01)/DEC/W/2 (Doha Ministerial, November 14, 2001.

domestic offices and agencies, including training of personnel. (Articles 66 and 67)

14. Institutional Arrangements

- *TRIPS Council*: The Council for TRIPS shall monitor operation of Agreement and Members' compliance and afford an opportunity of consulting on matters related to trade-related aspects of intellectual property rights; and shall carry out other responsibilities assigned, in particular by providing assistance on dispute settlement procedures. (Article 68)

- *Contact point*: Members agree to cooperate with each other to eliminate international trade in goods infringing intellectual property rights; in particular, to establish and notify points of contact in their administrations and be ready to exchange information on trade in infringing goods and promote the exchange of information and cooperation between customs authorities regarding trade in counterfeit trademark goods an pirated copyright goods. (Article 69)

- *Application to existing subject matter*: The protection required under of TRIPS applies to all subject matter existing at the date of application of the Agreement for the Member in question, with certain exceptions related to copyright. However, Members have no obligations with respect to acts that occurred before the date application of the Agreement and no obligation to restore subject matter in the public domain as of the date of application to the Member. (Paragraphs 1 through 6 of Article 70)

- *Amendment of applications for protection*: Where intellectual property rights are conditioned on registration, Member must permit applications pending on the date of application of this Agreement for the Member in question, to be amended to claim any enhanced protection provided under the provisions of this Agreement, but this does not include introduction of new matter. Specifically, patent applicants may add product claims to their applications that claim processes and that are pending on the date of application of the Agreement to the Member in question. (Article 70.7)

- *Mailbox*: A Member that did not make available patent protection for pharmaceutical and agricultural chemical products commensurate with the obligations under the Agreement as of 1 January 1995 shall:

  - Provide from as of 1 January 1995 a means by which applications for patents for such inventions can be filed;
  - Apply to these applications, as of the date of application of this Agreement, the criteria for patentability as set out in this Agreement as if those criteria were being applied on the date of filing in that Member or, if priority is available and claimed, the priority date of the invention; and
  - Provide patent protection in accordance with the Agreement from the grant of the patent and for the remainder of the patent term, counted from the filing date, for those applications that meet the criteria for protection above. (Article 70.8)

- *Exclusive marketing rights*: Members that did make available patent protection for pharmaceutical and agricultural chemical products commensurate with the obligations under the Agreement as of 1 January 1995 must grant exclusive marketing rights for a period of five years after obtaining marketing approval in that Member or until a product patent is granted or rejected in that Member, whichever period is shorter, provided that a patent application has been filed after 1 January 1995 and a patent granted for that product in another Member and marketing approval obtained in such other Member.

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