

## INTELLECTUAL PROPERTY

### THE PROTECTION AVAILABLE

New ideas, new products, methods and processes, new services, new promotional or merchandising schemes or approaches, new packaging or designs may be protected as intellectual property which includes patents, trade secrets, copyrights, and trademarks.

#### Patents

There are two kinds of patents, design and utility. Utility patents are the kind most commonly referred to for protecting an invention. They are granted for any new and useful process, machine, manufacture, or composition of matter or *any* new and useful improvement thereof, including new uses of old devices or new combinations of well-known components. Design patents cover only the new design of an object, its ornamental appearance. There are three classes of utility patents, chemical, electrical, and general/mechanical. Chemical inventions include new compounds, new methods of making old or new compounds, new methods of using old or new compounds, and combinations of old compounds. Biological materials and methods, drugs, foodstuffs, drug therapy, plastics, petroleum derivatives, synthetic materials, pesticides, fertilizers and feeds are all protectable. General/mechanical inventions include everything from gears and engines to tweezers and propellers. For example, complex textile weaving machines, space capsule locks and seals, and diaper pins are all protected. Electrical inventions include everything from lasers to light switches, from the smallest circuit details to entire architectural concepts. Computer software is patentable in its various forms. Application programs, such as the software that runs in a computer, which controls a chemical processing plant or a rubber molding machine, are patentable. Software that runs a cash management account at a brokerage house or bank is patentable, too. Even the microcode in a ROM, which embodies the entire inventive notion of a new tachometer, is patentable. Internal or operations programs, which direct the handling of data in the computer's own operations, are also patentable. The basic requirement for obtaining a utility patent is that the idea is new and that it is embodied in a physical form. The physical form may be a thing or a series of steps to perform. Design patents, too, are

awarded for new ideas. Hockey uniforms, ladies' dresses, computer housings, automobile bodies, buildings, shoes and game boards are all protectable with this type of patent. But it covers only the appearance, not the idea or underlying concept. What you see is what you get. Design patents are generally less expensive than utility patents and in some cases are all the protection needed or obtainable. There are more than one thousand utility and a few hundred design patents issued each week. Summaries of each patent are published each week in the Official Gazette of the Patent and Trademark Office. Copies of every issued patent are obtainable from the Patent and Trademark Office.

#### Trade Secrets

Trade secrets cover everything that patents cover, and much more. They protect any knowledge that gives an advantage in business over competitors. A trade secret is knowledge, which may include business knowledge or technical knowledge, that is kept secret to gain an advantage in business over one's competitors. Customer lists, sources of supply of scarce material, or sources of supply with faster delivery or lower prices may be trade secrets. Certainly secret processes, formulas, techniques, manufacturing know-how, advertising schemes, marketing programs, and business plans are all protectable. There is no standard of invention to meet as with a patent. If the idea is new in this context, if it is secret with respect to this particular industry or product, then it can be protected as a trade secret. Unlike patents, trademarks, and copyrights, there is no formal procedure for obtaining trade secret protection. Rather, it is established by the nature of the secret and the effort to keep it secret. A trade secret is protected eternally against disclosure by all those who have received it in confidence and all who would obtain it by theft for so long as the knowledge or information is kept secret. In contrast to patent protection, there are no statutory requirements for novelty or restrictions on the subject matter. Lesser and different inventions may be protected relative to patent protection. The disadvantage of trade secrets over patents is that there is no protection against discovery by fair means: accidental disclosure, independent inventions, and reverse engineering. Many important inventions, such as lasers and the hula hoop, were developed more or less simultaneously by different persons. Trade secret protection would not permit the first inventor to prevent the second and subsequent inventors from exploiting the invention the way a patent would. Trade secrets are not invoked only against those who stole them. They are equally well suited to lucrative licensing programs and often are more valuable than patents. The values of certain trade secrets have been appraised at many millions of dollars and may be virtually priceless in some industries. For example, the formula for Coca-Cola is one of the best-kept trade secrets in the world.

#### Copyright

Copyright covers all manner of writings, and "writings" is very broadly interpreted. It includes books, advertisements, brochures, specification sheets, catalogs, manuals, parts lists, promotional material, packaging and decorative graphics, fabric designs, photographs, pictures, film and video presentations, audio recordings, architectural designs, and even software and databases. Software and databases are protected in

written form and also as stored in electronic memory. It is said that copyright does not protect a mere idea; it protects the form of the expression of the idea. But this is broadly interpreted. For example, one can infringe a book without copying every word. The theme is protected even though upon successive generalization the theme devolves to one of seven unprotectable basic plots. This is apparent in the software area, where using the teachings of a book to write a program has resulted in copyright infringement of the book by the computer program. In another case, a program was infringed by another program even though the second program was written in an entirely different language and for an entirely different computer. The form of the expression protected was not merely the actual writing, the coding, but the underlying concept or algorithm, the flow chart. Copyright is a very strong and readily achievable source of protection. Utilitarian objects cannot be the subject of copyright: a hypodermic needle, a hammer, a lamp base. Yet stained glass windows, software, piggy banks are granted copyright protection. Copyright has a term of the life of the author plus fifty years. For corporate "authors" or works made for hire, the period is 75 years from first publication or 100 years from creation, whichever is shorter. During the life of the copyright, the owner has the right to reproduce, perform and display the work and exclude all others from those rights.

### Trademarks

Trademark protection is obtainable for any word or symbol or combination thereof that is used on goods to indicate their source. Any word, even common words, can become a trademark, Look, Life, Time, Apple, so long as the word is not used descriptively. Apple for fruit salad might not be protectable. Apple for computers certainly is. Common forms, such as geometric shapes (circles, triangles, squares), natural shapes (trees, animals, humans), combinations of shapes, or colors, may be protected. Trademarks have been registered for sounds and scents too. Even the single color pink has been protected as a trademark for building insulation. Three-dimensional shapes, such as bottle and container shapes and building features (McDonald's golden arches), can also be protected. Although people generally only speak of trademarks, that term encompasses other types of "marks". A trademark is specifically any word or symbol or combination of both used on goods to identify its source. However, a service mark is a word or symbol or combination of both used in connection with the offering and provision of services. BLUE CROSS/BLUE SHIELD, PRUDENTIAL INSURANCE, McDONALD'S are service marks for health insurance services, general insurance services, and restaurant services, respectively. There are also collective marks and certification marks. Collective marks indicate membership in a group, labor unions, fraternities, trade associations. Certification marks are used to indicate that a party has met some standard of quality, Quality Court motels, Underwriter's Laboratory, Good Housekeeping's seal of approval. If you use it to identify and distinguish a product or service, then think "trademark" protection. Ownership of a trademark allows you to exclude others from using a similar mark on similar goods which would be likely to confuse consumers as to the source of the goods. This right pertains for so long as the owner owns the mark. Federal trademark registration must be renewed every ten

years. State trademarks have various terms, usually ten years, and also require renewal. Trademarks can be more valuable to a company than all of its patents and trade secrets combined.

Consider the sudden appearance and abrupt increase in the worth of trademarks such as Cuisinart, Haagen Daz, and Ben & Jerry's. Consider also the increased value that the name IBM, Kodak, or GE brings to even a brand-new product. It is important to be able to determine at the earliest stage just what type of protection is available for your idea or product, patent, trade secret, trademark, copyright, so that the proper steps are taken and loss of rights is avoided.

### ESTABLISHING THE PROTECTION

Once it is determined that a new idea, product, or method, is protectable with one or more forms of protection, patents, trade secrets, trademarks, copyrights, those rights should be secured as quickly as possible. Each of those forms of protection is obtained in a different manner and provides a different set of rights.

#### Patents—Utility

Patent protection is established only upon the issue of a patent on the invention. From the date of issue forward until expiration, the owner of the patent has the right to exclude others from making, using, and selling the patented invention. Prior to issue there are no rights under a patent. Patents issued before June 8, 1995, expire seventeen years from their issue date. Patents issued on applications filed on and after June 8, 1995, expire twenty years from their filing date. Patents which issue on applications pending on June 8, 1995, expire either seventeen years from issue or twenty years from the application filing date, whichever is longer.

The effort begins when an inventor or inventors conceive the invention. They or a registered patent attorney or agent on their behalf prepare a patent application and file it in the US Patent and Trademark Office. On the date that the application is filed, there is a "patent pending," but this confers no rights and no protection. Protection occurs only if and when the Patent Office agrees that the invention is patentable and issues the patent.

The patent application must contain a complete and understandable explanation of the invention. It does not have to be a nuts and bolts instruction manual. It is enough if the explanation conveys the inventive concept so that a person skilled in the art to which the invention relates can make and use the invention without undue experimentation. Further, the explanation must contain a full description of the best mode known by the inventor for carrying out the invention. The inventor cannot, for example, use the second best embodiment of the invention as an illustration for the patent application disclosure and keep secret the best embodiment. That will make the resulting patent invalid.

The timing of the filing of the patent application is critical. It must be filed within one year of the first public disclosure, public use, sale, or offer for sale of the invention, or the filing will be barred and the opportunity to obtain a patent forever lost. This is known as the one-year period of grace.

A description of the invention in a printed publication is such a public disclosure. A mere announcement is not suffi-

cient, unless it contains an explanation of the invention too. It does not matter that only a few copies of the publication were made available, so long as it was an unrestricted distribution.

Market testing, exhibitions, even use by the inventor himself is a public use sufficient to start the one-year period running. There is an exception: a public use which was for experimental purposes will not start the year running. This test as to whether a public use was an excused experimental use is rigorous. The inventor must show that it was the operation and function of the invention that was being tested, not the appeal or marketability of the product containing the invention. Further, some evidence of the testing should be established. For example, if samples were sent to potential customers for evaluation, it would be well to show that the customers returned filled out evaluation forms and that the inventor considered and even made changes based on those evaluations.

A sale bars a patent even if the invention is so deep inside a larger system that it could not be easily or ever discovered. If the device containing the invention is sold, that is enough. The notion is that an inventor should be given only one year in which to file his patent application after he has begun to commercially exploit or attempt to commercially exploit his invention. Thus, the one-year period for filing a patent application begins to run against an invention embodied in a production machine installed in a locked, secure room the first time a device produced by that machine is sold, even though the machine may never be known or seen by anyone other than the inventor. And it is not just a sale that triggers the running of the one-year period. An offer for sale is enough, even if the sale is never consummated.

A patent application contains three basic parts: drawings showing an embodiment of the invention; a written description of the embodiment referring to the drawings; and one or more claims. The definition of the patented invention, the protected property, is not what is disclosed in the drawings and specification portion of the application; they are only the description of a specific embodiment. The coverage of the patent is defined by the third part of the application, the claims.

To receive a patent, the claims must be novel and unobvious. Novelty is a relatively easy standard to understand: either a single earlier patent, publication, or product shows the entire invention or the invention is novel. Obviousness is somewhat more difficult to grasp. Even though an invention may be novel, nevertheless, it may be obvious and therefore unpatentable. The test for obviousness is more subjective. Are the differences between the invention and all prior knowledge including patents, publications and products such that the invention would have been obvious to a person having ordinary skill in the art to which the invention pertains at the time the invention was made? If so, the invention is not patentable even if it is novel.

It is the claims that the US Patent and Trademark Office Examiner analyzes and accepts or rejects in considering the issuance of the patent. It is the claims that must be looked at to see if someone infringes a patent. It is the claims that define the patent property.

It is important to note that in the US a patent must be filed by the inventor and no one else. The inventor is the originator of the inventive concept. A project leader is not by his supervisory position alone an inventor of an invention. Nei-

ther is a technician or engineer who may have built the entire first working model. The inventor may have sold or assigned the patent application to someone else: his employer, a partner in some enterprise, a company he has newly formed, or one inventor may sell his interest to the other. Thus the inventor or inventors may not be the owners of the patent, but nevertheless it must still be filed in their names.

#### Patents—Design

Design patents have a life of only 14 years but are otherwise generally subject to the same rules as other patents, that is, the new and original ornamental design sought to be patented must be novel and unobvious and must be filed with one year of the first public use, publication, sale, or offer for sale.

#### Patents—Plant

Plant patents are also available for inventions or discoveries in asexual reproduction of distinct and new varieties of plants. This area of patents has become much more important with the growth of biotechnological inventions in the last few years, especially as regards protection of man-made life forms.

#### Trade Secrets

There is no formal governmental procedure for establishing ownership of a trade secret. There are two requirements for establishing a trade secret: novelty and secrecy.

There must be some novel knowledge which provides an advantage in business and that knowledge must be kept secret. The level of novelty is not great. The knowledge must not be in the public domain. But the knowledge could be known generally and not specifically and still qualify as a trade secret. For example, the identity of a source of scarce material or material at a lower cost or material which can be delivered in a shorter time could be a trade secret insofar as that is unknown to competitors and gives an edge in competing with them.

Secrecy is essential. Without that there is no trade secret property. There are four primary steps for insuring secrecy. First, there should be confidential disclosure agreements with all employees, agents, consultants, suppliers, and anyone else who is exposed to the secret information. The agreement should bind them not to use or disclose the information without permission. Second, there should be security precautions against third parties entering the premises where the trade secrets are used. Sturdy locks, perimeter fences, guards, badges, visitor sign-in books, escorts, and designated off-limit areas are just some of the ways that a trade secret owner exercises control over the area containing the trade secrets. Third, specific documents containing the trade secrets should be stamped with a confidentiality legend and should be kept in a secure place with limited access, such as a safe or locked drawer or cabinet. Fourth, the employees, consultants and others who are concerned with, have access to, or know about the trade secrets should be told of the existence of the secrets, their value to the company, and the requirement for secrecy.

Trade secret owners rarely do all of these things, but an attempt must be made to do enough so that a reasonable person misappropriating the secrets cannot excuse his conduct by saying he did not know or that no precautions were ever

taken and there was no indication that something was a trade secret. This is important because, unlike patents, trade secret protection provides no “deed” to the property.

There is no formal procedure for establishing a trade secret, and thus the necessary steps for establishing a trade secret are often not taken seriously until a lawsuit is brought by the owner against one who has misappropriated them. In each specific case the owner must show that the precautions taken were adequate.

Trade secret misappropriations are generally of two classes: those, where someone who has a confidential relationship with the owner, has violated the duty of confidentiality and those, where someone under no duty of confidentiality, uses improper means to discover the secret.

Theft of trade secrets issues frequently arise with respect to the conduct of ex-employees. Certainly good employees learn a lot about the business during their employment. And they will take some of that learning with them as experience when they leave. That can not be prevented. The question always is, did they just come smart and leave smarter or did they take certain defined information that was peculiarly the company’s?

### Trademarks

A trademark, unlike a patent, is established without any formal governmental procedure.

Ownership of a trademark is acquired simply by being the first to use the mark on the goods in commerce. And it remains the owner’s property in perpetuity as long as it is used. A trademark is any word or symbol or combination of word(s) and symbol(s) used on the goods to indicate the source of the product. The mark should not be descriptive of the goods on which the mark is used.

The mark may be suggestive of the goods. It is best to select a mark which is arbitrary and fanciful with respect to the goods because everyone, including competitors, has a right to use a descriptive term to describe their goods. Therefore exclusive rights in such a mark cannot be secured. A trademark owner should be careful, too, to prevent the mark from becoming generic, as happened to aspirin, cellophane, linoleum and others and may be happening to Band-Aid or Jello or Kleenex. The correct form is Bandaid elastic bandages; Jello fruit flavored gelatin dessert; Kleenex facial tissues.

It is wise to have a search done for a proposed new mark before beginning to use it to be sure that the mark is clear to adopt and use on the goods, that is, no one else is using the same or similar mark on the same or similar goods. It is confusing to customers, and it is expensive to change a mark and undertake all new printing, advertising, and promotional materials when it is later discovered that your new mark has been earlier used by another.

Although there is no need to register a mark, there are benefits associated with registration that make it worthwhile. A mark may be registered in individual states or a federal registration may be obtained. A state registration applies only in the particular state that granted the registration and requires only use of the mark in that state. A federal registration applies throughout all fifty states, but, to qualify, the mark must be used in interstate or foreign commerce. A distinct advantage of federal registration is that, even though a mark is used across only one state line, that is, goods bearing

the mark are in commerce between one state and another state or country, that is enough to apply for federal protection in all fifty states.

Thus if you are using your mark in Massachusetts, New Hampshire, and Rhode Island, for example, but do not register it federally, you may later find yourself blocked from using your mark in all other states if a later user of the same mark without knowledge of your use of the mark federally registered the mark as his. The later user would then have the right in all other 47 states even though his actual use may only have been in Oregon and California!

Although your common law rights in a trademark or service mark last forever, as long as you are properly using the mark, registration must be periodically renewed. Federal registrations extend for twenty years (ten years for registrations filed after November 16, 1989); states vary, but ten years is typical.

Throughout the history of trademark law in the US, registration in the US Patent and Trademark Office followed the common law, that is, to establish ownership of a trademark, one had to use the mark on the goods in commerce, and, to register the mark in the US Patent and Trademark Office, one had to establish that the mark was indeed in use.

That has changed. Beginning on November 16, 1989, an application can be filed to register a mark which is not yet in use but which is intended to be used. After the US Patent and Trademark Office examines the application and determines that it is registrable, it will require that the applicant show actual use within six months. The six-month period can be extended if good cause is shown. Nevertheless, before registration, even before actual use, the mere filing of the application to register the mark intended to be used establishes greater rights over later users who actually used it earlier than your filing date.

Care must be taken with trademark properties. A trademark cannot be simply sold by itself or transferred like a desk or a car or a patent or copyright. A trademark must be sold together with the business or goodwill associated with the mark or the mark will be abandoned. Further, if a mark is licensed for use with a product or service, provision must be made for quality control of that product or service, that is, the trademark owner must require the licensee to maintain specific quality levels for products or services with which the mark is used, under penalty of loss of license. And the owner must actually exercise that control by periodic inspection, testing, or other monitoring to assure that the licensee’s product quality is up to the prescribed level.

### Copyright

Under copyright law, historically, a copyright was established by publishing the work, a book, painting, music, software, book, instruction manual, with copyright notice, typically “Copyright”, “Copr.”, or a “©” followed by the year of first publication and the name of the owner. The notice may appear on the back of the title page of a book, on the face of a manuscript or advertisement, or on the base of a sculpture. It must be visible and legible but it may be placed so as not to interfere with the aesthetics of the work. If any more than a few copies of the published work appeared without the notice, the copyright would be forfeited forever. Works that were unpublished did not need notice. They were protected by virtue of

their retention in secrecy. Publication with notice was all that was required. Registration with the Copyright Office was not always necessary.

Under the current law enacted in 1976, publication without notice can be cured if the omission of the notice is only from a small number of copies; registration of the work with the Copyright Office is effected within five years, and an effort is made to add the notice to those copies published without it. Notice must be on the work in all of its forms. For example, for software, the notice should appear on the screen, in the coding, on the disk and on the ROM, wherever the software is resident or performing. In one case an infringer got away with reading out copyrighted software from a ROM because there was no notice on the ROM although there was notice elsewhere.

Presently, under an amendment to the current law effective March 1989, there is no notice required at all. To become a member of an international copyright treaty known as the Bern Convention, the United States had to abolish all formalities required to establish copyright in a work. Now the simple fact that a work was created, whether published or not, establishes the copyright without anything more. It is not clear that this removal of the need for notice is retroactive. Thus new works after March 1989 need not have notice, but those which were required to bear notice before the amendment should, in the exercise of prudence, continue to bear the notice.

Although notice is no longer compulsory, it is a valuable and worthwhile practice because it enables pursuit of innocent infringers, that is, an infringer, who did not have actual notice that the work copied was copyrighted, is nevertheless liable for damages if the works bore copyright notice.

Registration, too, is not compulsory, but it too bestows valuable additional rights. If the copyright owner has registered his copyright, then statutory damages of up to \$500,000 can be recovered without proof of actual damages. This can be a real advantage in copyright cases where actual damage can be difficult and expensive to prove.

Registration requires filling out a proper form and mailing it to the Copyright Office with the proper fee and a deposit of two copies of the work for published works, only one copy if the work is unpublished. Accommodations are made for filing valuable or difficult to deposit copies: deposit for three-dimensional works can be effected by photographs; deposits for large computer programs can be effected by only the first and last twenty-five pages. Further, if the program contains trade secrets, there is a provision for obscuring those areas from the deposit.

The duration of a copyright is extremely generous when compared to the life of a patent. Copyright in a work extends for the life of the author plus 50 years. For works for hire, such as would be the case for a filing by a corporation, the period of copyright is 75 years from first publication or 100 years from creation, whichever is shorter.

Work for hire is a critical issue in copyright law that should be understood by all employers, employees, and independent contractors. A work for hire is one for which one party, the employer, hires another party, the creator, to create a new work, a book, software, a videotape which is copyrightable subject matter. If the creator is truly an employee of the employer, then the work is a work for hire and the employer is the "author" and owner in law. If the creator is

anything less than a bona fide employee, that is, if there is any question that the creator is acting on his own as a free lancer, or independent contractor, then the creator, not the employer, is the author and owner. The large gray area of uncertainty has spawned many disputes and lawsuits which can be avoided by a written agreement executed before any work starts or money changes hands, specifically covering who is the owner and who gets what rights.

## INTERNATIONAL PROTECTION

Obtaining protection for patents, trademarks, and copyrights in the United States alone is no longer sufficient for modern international competition and global markets. International protection often must be extensive and can be quite expensive, but there are ways to reduce and postpone the expense in some cases. Protection must be considered in countries where you intend to market the new product or where competitors are poised to manufacture your product.

### Patents

A patent in one country does not protect the invention in any other country. A novel product or method must be protected by a separate patent in each country. In addition, each country has different restrictions that must be met, or no patent protection can be obtained. The first and most important restriction is the time within which you must file an application to obtain a patent in a country or forever lose your right to do so.

Not all countries are the same with respect to filing deadlines. For example, in the United States, an inventor may file an application to obtain a patent on his invention up to one year after the invention has become public through a publication explaining the invention, a public use of the invention, or sale, or offer for sale of the invention. This one-year period is known as the period of grace.

There is no period of grace in other countries, such as Great Britain, West Germany, Sweden, France, Italy, Switzerland, Belgium, Austria, Netherlands, Australia, and Japan. And each country has a slightly different view of what constitutes making an invention public. In Japan, for example, public use of an invention before filing an application bars a patent only if the public use occurred within Japan, but in France any public knowledge of the invention anywhere bars the patent.

Thus, while the United States allows one full year to test market its new product, most foreign countries require that the patent application be filed before there is any public disclosure, before the owner can even begin to determine whether the new product will be even a modest success. So while you can delay filing for a year in the United States, you have to file quickly in each other country of concern. And that is not inexpensive, especially if the US dollar is down against the currencies of other major countries.

But there are ways to avoid having to file immediately. One way is afforded by a treaty known as the Paris Convention. If you file in the United States and then file in any country which is a part to the Convention within one year of the date on which you filed in the United States, you can rely on the United States filing date. As long as you claim priority under the Convention, the filing date awarded in that country

will be not the actual date of filing in that country but the date, up to one year earlier, when you filed in the United States.

In this way, by filing one application for the invention in the United States, you can preserve your initial United States filing date for up to one year. What this means is that you can file an application in the United States, then immediately make the invention public by advertising, published articles, and sales. If the product appears to be a success within one year, you can then file in selected foreign countries. Even though the prior public use of the invention ordinarily bars your filing in those countries, the Convention protects you. Countries which are members of the Paris Convention include

Algeria	Libya
Australia	Leichtenstein
Austria	Luxembourg
Barbados	Madagascar
Belgium	Malawi
Benin	Mali
Burkina Faso	Mauritania
Burundi	Mauritius
Cameroon	Mexico
Central African Republic	Monaco
Chad	Mongolia
China	Morocco
Congo	Netherlands
Cuba	Netherlands Antilles
Cyprus	Niger
Czechoslovakia	Norway
Egypt	Poland
Finland	Portugal
France	Rwanda
Gabon	South Africa, Republic of
Germany	Spain
Ghana	Sudan
Greece	Surinam
Guinea	Sweden
Haiti	Togo
Hong Kong	Tunisia
Iraq	Uganda
Italy	United States
Ivory Coast	Uruguay
Japan	Vatican City
Jordan	Viet Nam
Kenya	Yugoslavia
Korea, Democratic Republic of	Zaire
Korea, Republic of	Zimbabwe

There are other options by which you can further postpone the cost of foreign filings while preserving your right to file. For example, another more recent treaty, known as the Patent Cooperation Treaty (PCT) permits a delay of up to thirty months before actually incurring the costs of filing in individual countries. The PCT option is available if you file and request PCT treatment within one year of your US filing date.

Thus by filing a PCT application in specially designated PCT offices within one year of your US filing and by designating certain countries, you can preserve your right to file in those designated countries without further expense until thirty months from the earlier US filing date. That provides an additional eighteen months for test marketing the product. This introduces the extra cost of the PCT application, but if you are considering filing in six or eight or more countries, the one extra PCT filing may well be worth it for two reasons. First, it delays the outflow of cash which you may not now have or may require for other urgent needs. Second, if the product proves insufficiently successful, you can decide not to file in any of the countries designated under the PCT and save the cost of all six national applications.

Countries which are party to the PCT include

Albania	Kenya
Armenia	Korea, North
Australia	Korea, South
Austria	Kyrgystan
Azerbaijan	Latvia
Barbados	Lesotho
Belarus	Liberia
Belgium	Liechtenstein
Benin	Lithuania
Bosnia and Herzegovina	Luxembourg
Brazil	Macedonia
Bulgaria	Madagascar
Burkina Faso	Malawi
Cameroon	Mali
Canada	Mauritania
Central African Republic	Mexico
Chad	Moldova
China	Monaco
Congo	Mongolia
Cote d'Ivoire	Netherlands
Cuba	New Zealand
Czech Republic	Niger
Denmark	Norway
Estonia	Poland
Finland	Portugal
France	Romania
Gabon	Russian Federation
Georgia	Saint Lucia
Germany	Senegal
Ghana	Singapore
Greece	Slovakia
Guinea	Slovenia
Hungary	Spain
Iceland	Sri Lanka
Ireland	Sudan
Israel	Swaziland
Italy	Sweden
Japan	Switzerland
Kazakhstan	Tajikistan

Togo	United Kingdom
Trinidad and Tobago	United States
Turkey	Uzbekistan
Turkmenistan	Viet Nam
Uganda	Yugoslavia
Ukraine	

Another cost-saving feature of international patent practice is the European Patent Convention (EPC), which is compatible with the Paris Convention and the PCT and which enables you to file a single European patent application and designate any one or more of the following seventeen European countries in which you wish the patent to issue:

Austria	Luxembourg
Belgium	Monaco
Denmark	Netherlands
France	Portugal
Germany	Spain
Greece	Sweden
Italy	Switzerland
Ireland	United Kingdom
Liechtenstein	

### Trademarks

There are a number of international treaties which affect trademark rights. The three countries of Belgium, Netherlands and Luxembourg have joined together under the Benelux Union to form a single trademark territory. One registration provides protection in all three countries.

A number of countries have formed the Madrid Union, wherein one international registration is recognized in all of the member states unless specifically refused by a member state. Each member state may conduct its own examination. Currently, member states include European countries (except generally the UK and Ireland), African States, and the Russian Federation. The Union applies to (1) nationals of a member state; (2) domiciliaries of a member state; and (3) individuals or corporations having an office or place of business in a member state (corporate subsidiaries may own a mark and register it in the member state). The same Paris Convention referred to earlier with respect to patents provides a six month right of priority. A party may claim a filing date in a Madrid Union country up to six months earlier on the basis of the US filing date. The term of the registration is twenty years. French-African states and the island of Madagascar have been made into one unified trademark territory under a treaty known as OAMPI. The Paris Convention gives certain rights afforded to citizens of a member state to nationals of other member states. As previously indicated, applications for patents may receive the benefit of a one-year priority date. Applications for trademark registration receive a six-month priority date based on the home country filing date.

A new and separate union for the international registration for trademarks was founded in 1973, the Trademark Registration Treaty. International registration is obtained under this treaty without first having to register the mark in the applicant's home country. The registration is effective for ten years. Although signed by fourteen countries, only five coun-

tries have deposited an instrument of accession to the treaty, namely, Congo, Gabon, Togo Republic, Upper Volta, and the Russian Federation.

In the United States, a foreign applicant, whose country of origin is a party with the United States to a trademark convention, or extends reciprocal rights to US nationals, may base a US application on (a) ownership of a foreign trademark registration; or (b) ownership of a foreign application if the US application is filed within six months of foreign filing.

If a mark has been registered in a foreign country, no use in commerce must be alleged. If relying on a foreign application, no US registration will issue until the applicant alleges use or the foreign registration issues. Use of the mark is required to maintain a valid registration. The use requirements for obtaining US trademark registrations have been eased for US nationals, too, under a new law effective November 1989.

Although the United States is only now eliminating its traditional requirement for actual use of the trademark on the goods in commerce before application for registration can be filed, most other countries have never had that requirement. Australia, Canada, West Germany, Italy, Japan, Great Britain, and Switzerland permit filing with only an intent to use. France and Sweden do not even require an intent to use to file.

### Copyright

There are a number of international treaties which affect copyright, the most important of which are the Universal Copyright Convention, to which the United States has long been a party, and the Bern Union, to which the United States has finally fully acceded with the amendments to US law effective March 1, 1989.

The Universal Copyright Convention (UCC), adopted by approximately eighty countries including the United States and the Russian Federation, requires that each country treat nationals of other member countries as they do their own citizens. It gives copyrightable works protected by the UCC the same rights as domestic works. The UCC excuses compliance with all domestic member country formalities with respect to unpublished works and published works, which display the copyright notice, name of owner, and year of first publication. In the United States, the Congress has invoked a restrictive provision of the UCC to require domestic formalities in cases of works first published in the United States by US citizens or UCC member country nationals. Accordingly, foreign nationals can begin a copyright infringement action without having a copyright notice or a recordation. US citizens cannot. The UCC requires that nationals comply with the formalities of their own countries and avoids foreign formalities.

The Bern Union includes all major countries including European countries, Japan, and most recently, the United States. The Russian Federation is not a member. The Union has minimum requirements that must be met, namely, the duration of the copyright must be at least for the life of the author plus twenty-five years, and copyright must be automatically granted without the need for formalities. Accordingly, the United States has formed a two-tier system. Works, whose author's domicile is a foreign state adhering to the Bern Convention and where publication occurs first in a Bern State (except the United States), are exempt from the registration application prerequisite, and infringement suits may

be brought with respect to such works, even if they have never been submitted for registration with the Copyright Office. Most other works, most importantly those of US domiciliaries, must comply with the formalities of notice and filing before an infringement action may be brought.

There are also two Pan American Conventions: (a) Mexico City Convention of 1902 and (b) Buenos Aires Convention of 1922. These are agreements among approximately 17 South American Member countries wherein a copyright obtained in one state is valid in the other states without formalities, provided a notice reserving all property rights is included. The notice must read "copyright reserved" or "all rights reserved". This is not a very strong union, as the United States has separate treaties with most of the member countries. The Pan American Union is primarily of benefit to US citizens who wish to obtain protection for their works in Bolivia.

The United States also has special treaties with a number of countries, such as Taiwan, to confer reciprocal copyright protection to United States and Taiwanese citizens. In addition, the United States has enacted special legislation which extends US copyright law to Guam and the US Virgin Islands.

International protection for patents, trademarks and copyrights is widely available and becoming more and more necessary as the global marketplace becomes more a reality to all businesses, not just large multinational corporations. Careful planning can result in inexpensive yet extensive and valuable protection for products in international markets.

## FROM INVENTION TO PATENT: THE INVENTOR'S ROLE

The path to a patent begins with an invention. Strictly speaking, an invention requires a conceptualization of the invention and a reduction to practice. The conceptualization is not merely an idea but a concrete realization of how the invention can be effected: an existing problem solved, a new task that can be achieved. A reduction to practice is the actual building of a device or the execution of the steps of a method which implements the invention. A reduction to practice is not necessary before filing an application for a patent. Conception is. Although you may file a patent application immediately at this point, there are two other actions you should consider: record keeping and a preliminary patentability search.

### A Patent Begins With the Invention

Record keeping properly done establishes evidence of the earliest provable date of the conception of the invention. It also establishes evidence of the fact of and the date of the reduction to practice and of diligence of the inventor in bringing the invention from the conceptual stage to the reduction to practice. Those two dates and the level of diligence between them is what the US Patent and Trademark Office considers when it is determining which one of two different inventors is going to receive the patent for the invention.

The best proof for this purpose is documentary evidence corroborated by an unbiased witness or two. A bound, page-numbered notebook which cannot have pages added or removed surreptitiously is a good recording medium. The concept and all thoughts on improvements, variations, and applications should be written in the notebook and each page dated and signed by the inventor identified as such. Each

page should also be signed and dated by one or more witnesses who have read and understood the inventor's descriptions. The witnesses should sign under a legend such as: "Explained to and understood by me." For this witnessing is not, as in the case of a notarized will or trust, merely that the signing parties are not subject to duress or coercion, are who they say they are and appear sane and sober. In this case the witnesses are testifying that concepts on this page were made known to them on that date. A notarized document is not nearly so probative.

A self-addressed postmarked envelope containing the inventor's own letter describing the invention is of little worth. It can only be entered into evidence on the inventor's sworn statement that the letter was not opened or tampered with. If the inventor's word as to the letter was acceptable proof, then so would the inventor's word concerning the date of conception. That is not likely and should not be counted on.

Take care to have the inventor(s) and witness(es) clearly identified and distinguished. Serious problems have arisen when a party assumed to have signed as a witness later claims to have signed as inventor or coinventor!

A preliminary patentability search is generally advisable, but not mandatory. The basic purpose of such a search is to determine the general state of the art in the area of the invention. This helps the inventor understand whether there is something patentable about the invention and the scope of the protection that may be available.

Understand that a preliminary patentability search is a single purpose search with a narrow goal. It covers only issued US patents, whether expired or not, not US patent applications. They are secret unless and until they actually are issued. It does not cover any patents or patent applications of any other countries and does not cover the scientific and technical literature at all. Such a comprehensive search is quite expensive. The preliminary patentability search is by no means exhaustive. It is a limited search done on a limited budget in a limited period of time. Pertinent references could be overlooked, temporarily missing, or misclassified. A favorable outcome of a preliminary patentability search in no way guarantees the patentability of the invention. The US Patent and Trademark Office Examiners will do their own search and make up their own minds as to whether the invention is patentable.

In a preliminary patentability search, the searchers attempt to cover the most likely areas in the US Patent and Trademark Office files, where relevant art should be found in accordance with their own experience, the recommendations of patent examiners, the studies of the classification manuals and definitions therein, and of the original and cross-reference classifications of relevant patents uncovered during the course of the search. Even so, relevant art may not be discovered. For example, the issuing patent Examiner may not have properly classified and/or cross-referenced the patent. Even at their best, the Patent Office search files are never wholly complete. Finally, there is the consideration that this is merely a preliminary patentability search and must be done within acceptable cost limits.

Also be aware that consciously or subconsciously an inventor often shifts the focus of his invention after a search is done, either as a result of a sharpened focus after seeing the search results, a subconscious refusal to accept that the invention is already known, or a further understanding of the



invention. Whatever the reason, such a shift may make the original search inapplicable since there is now a different invention being emphasized.

Finally, do not mistake a preliminary patentability search for an infringement search. A preliminary patentability search attempts to bring to your attention the general prior art in the area of the invention so that you can get a feel whether and to what extent your invention is patentable. In contrast, an infringement search attempts to uncover not just patents which may contain disclosures of your invention. Rather, this search seeks to find unexpired patents which are of the same scope, a more dominant coverage, or even a more narrow coverage which would prevent or interfere with your right to freely practice or license your invention. These searches are much more time-consuming and expensive than simple preliminary patentability searches.

### Preparing the Patent Application

Preparing a patent application is a unique and rewarding experience and one in which the inventor must fully participate to obtain a patent that protects the invention to the fullest extent possible. The time it takes depends upon the sophistication of the technology, the articulateness of the inventor, and the closeness of the prior art.

The impact of the sophistication of the technology can be seen by a simple example. If the invention is a nonslip door-knob it takes less effort and time to understand and write a background which explains the problems that existed before the invention and which quickly and sharply focuses on the invention which solves those problems. Compare this with an invention involving a new method of injecting a dopant in integrated circuit transistor fabrication which enables much higher packing density and greater computing power and makes possible an operating system to support a truly adaptive learning system. This requires the clear understanding and explanation of half a dozen different disciplines just to understand the context of the improvement. Only after that does the work begin to define the invention.

The articulateness of the inventor is a critical factor, not only in the time but the breadth of the patent protection sought. A patent is not a scientific paper, nor is it a simple statement of an idea. It is a complete disclosure of one embodiment of the invention. It must describe the best mode of carrying out the invention presently known to the inventor. The inventor may not disclose the second best implementation of the invention and keep the best a secret. And the disclosure must be sufficient for others skilled in the art to make and use the invention without undue experimentation. But it is not a how-to manual, nor does it require proofs and citations as does a scientific paper or a doctoral thesis. The inventor may not even understand why the invention works, only that it does. Most importantly, the inventor should strive at some point to rise above the specific embodiment, above the mathematical or scientific proof that the invention is sound, and above all the other details, and attempt to see the broader concept which can be extracted from the details, the underlying notion, the generic nature or philosophy of the invention. Only then is the patent properly drafted with claims broad enough to fully protect the broad scope of the invention, not just the embodiment presently contemplated.

Finally, the closeness of the prior art must be considered. An antigravity machine or room temperature fusion energy source are easy to see against the background of prior art, like a full moon against the night sky. But consider trying to patentably distinguish a new nail. There are dozens of different types of nails, wood, concrete, horseshoe, in many types of sizes and shapes, with many different surfaces and textures. A patent claim to a new nail would have to be expressed very, very carefully to avoid all those prior art nails and yet gain for this new nail the fullest scope of protection to which it is entitled.

In addition to spending anywhere from half an hour to a number of hours with a patent attorney, an inventor should provide background material. This does not mean piles and piles of documents. Remember, as an attorney and a professional member of the patent bar, the patent attorney has a duty to read and understand anything you supply to determine what is truly prior art to be patentably distinguished and what is not. This takes time, and time means cost. So provide the attorney only with those things that are material to the invention to properly define your invention and patentably distinguish it. The attorney must also bring all prior art to the attention of the US Patent and Trademark Office Examiner. If that is not done a patent may later be invalidated for failure to bring pertinent art to the attention of the Office during prosecution of the patent application.

The most effective information that an inventor can supply to the attorney includes, first, a background of no more than two or three pages explaining the problems that gave rise to the need for the invention. This background should start out with a general description of the field to which the invention relates and gradually get more specific until all the problems confronting the inventor and solved by the invention are spelled out. Second, a list should be compiled of all the advantages of the invention. These advantages are the solutions to the problems raised in the background and should be in functional terms, for example, faster, less expensive, more compact, uses less toxic chemicals, more and faster memory. Third, a set of drawings is required, which may be as simple as hand sketches or may be CAD/CAM or draftsman drawn. These drawings should start with a broad view of the environment of the invention and gradually get more specific until the details of the invention itself are revealed. Finally, the inventor should attempt to express the basic inventive concept in one sentence. Preparing and submitting this to the attorney in advance considerably shortens the actual meeting time.

At the meeting with the attorney, the background and advantages are discussed in detail and the attorney obtains a complete description and understanding of one specific embodiment of the invention as disclosed in the drawings. At this point a solid estimate of cost could be obtained provided *nothing* changes. Ultimately, the attorney explores the scope and breadth of the invention to get a good idea just how broad the invention is. Prior art is analyzed and distinguished, and claims are discussed against the background of the market and product the inventor wishes to protect and the likely attempts of competitors to design around the invention.

The inventor must be fully involved in this process to insure that the patent application seeks the level of coverage necessary to protect the inventor. This lays the groundwork for drafting the claims, to which the attorney devotes sub-

stantial time and effort. It is not uncommon for an attorney to spend half the time required to write an application just drafting the claims. Claims are the most important part of the patent. The claims define the protection afforded by a patent. It is the claims which must be read on an infringing device if the patent is truly infringed and it is the claims which the Examiner examines, usually rejects, and finally agrees are allowable, often after amendment, if the patent ultimately is granted.

Once the first draft of the patent application is completed it is sent along with drawings created by the inventor and attorney to the inventor, who reads it and makes comments, changes, and corrections on the draft itself and returns it to the attorney for preparation in final form. If the changes are understandable, the attorney prepares the final draft, but if they are not or the attorney is not comfortable with them because they change the focus of the invention, for example, then another meeting with the inventor may be scheduled.

Often the opportunity to read the presentation of the invention in the draft application inspires other, deeper reflections by the inventor which result in a fundamental change in the perception of the invention. This certainly requires another meeting and perhaps a second draft of the patent application. Eventually, after the first or subsequent draft is approved by the inventor, the patent application is prepared in final form and submitted to the inventor for reading and execution. This draft is accompanied by a Declaration, Petition and Power of Attorney, and perhaps an Assignment from the inventor to his company and a small business verification form if the inventor is entitled to a 50% reduction in the US Patent and Trademark Office fees.

The application at this time is accompanied by formal drawings, or the original sketches and drawings are used if they are clear and understandable and are acceptable to the Office. Subsequently, formal drawings have to be submitted before the case is allowed to issue as a patent. After the inventor has read and signed all the necessary papers they are typically returned to the attorney who submits them to the US Patent and Trademark Office by mail, Express Mail, courier (such as Federal Express), or by hand delivery.

A cover letter accompanying the application to the Office encloses the filing fee and a list of all pertinent prior art then known to the attorney and inventor. If additional prior art is discovered at any time during prosecution of the application, it must immediately be brought to the attention of the Office. This letter also typically encloses a stamped, self-addressed postcard identifying the application and the papers filed with it which will be stamped by the Office with the serial number and filing date and returned to the attorney within a few weeks so that all can be assured that the application was safely received by the Office. An official filing receipt does not arrive for three months or so. If the application is properly mailed by Express Mail, then the filing date accorded the case will be the date it was deposited with the US Postal Service. Otherwise the filing date is the day the case was physically received in the Office.

#### **Patent Pending: The Patent Office Procedure After Filing**

Once received in the Office, the application is classified as to its technical art and assigned to the Examiner who handles that particular area of technology. Examiners have at least

an undergraduate scientific or engineering degree. The application is placed on that Examiner's docket and taken up in order. The Examiner reads the application, searches the relevant art, such as US and foreign patents, scientific papers and journals and books, to determine whether and to what extent the invention is patentable.

Almost universally the first communication from the Examiner, called an Office Action, refuses all or nearly all of the claims. A first class of comment known as a rejection is based on a number of different substantive grounds. This first Office Action occurs any time after filing. The average time is 12 to 14 months, but some take longer and some occur in six months. The Examiner may find a complete anticipation of the invention in a single document or patent, or may have found no such total anticipation but one or more references which make the invention obvious to one skilled in the art, even though the single idea of the invention is nowhere to be found. The Examiner may also reject the claims as not being drawn to proper patentable subject matter or as being vague and indefinite and not distinctly setting forth the invention.

The Examiner can also make a second class of criticisms, known as objections, based not on substantive but on technical grounds: grammar, spelling, diction, insufficient explanation, too much explanation, nonsequiturs, or the like.

The Office generally allows just three months to reply to the Office Action. Replies made after the third month during each of the fourth, fifth and sixth months must be accompanied by an escalating late fee and a request for an extension for the appropriate time. After six months if no reply is filed, the application becomes abandoned and is revived only by a timely petition accompanied by a much larger fee.

The reply to the Office Action, normally titled a Response, includes amendments to the description and drawings and to the claims as deemed necessary to meet the Examiner's rejections/objections. It also includes arguments made by the attorney. The attorney makes whatever amendments to the application are needed to meet the technical objections, provided such amendments do not change the sense of the claims or invention.

With respect to the reply to the substantive rejections, the attorney is a bit more conservative. First the attorney reads all the references relied on by the Examiner and studies the Examiner's remarks to understand thoroughly how the Examiner is applying those references to refuse patentability of the claims. The attorney explains to the Examiner why each of the references is not applicable to the claims, or why the combination of references is not applicable. The attorney also, in lieu of or in addition to arguing the references, amends the claims, so that they more clearly define and distinguish the invention from the references. The description, drawings and claims may be freely amended at this time, but bear in mind that no new matter may ever be introduced into the application. The application disclosure was fixed, frozen as of the date it was filed in the Office.

The original disclosure and its normal understanding by those skilled in the art is the focus of the examination procedure. No extraneous matter can be argued or added. If the inventor suddenly realizes another feature of his invention which he failed to include but which now easily distinguishes the invention from the prior art, it is too late. The only option is to file a new application, a continuation-in-part application, to add the new matter, and begin the examination process

anew. This happens in a relatively small number of cases. Normally, good arguments and amendments are made to persuade the Examiner. Often the next Office Action, which occurs in about three to six months, allows at least some of the claims, and the applicant must determine whether to accept those and give up the rest or make a second Response and attempt to obtain greater coverage.

The second Office Action may also reaffirm the rejection of all the claims. Normally this second Office Action is made FINAL, meaning the applicant must comply with all requirements made by the Examiner or the case will be abandoned and no further Office Actions will be forthcoming. All of this correspondence is done in writing. But at any time during this process the attorney may feel it productive or necessary to confer by telephone or in person with the Examiner at the Patent Office to present arguments and point out distinctions that are difficult to communicate on paper. At this point the applicant has four choices: completely comply if such compliance gets the case allowed; file a continuation case, which is simply a substitute of the original, and start prosecution again; file a continuation-in-part and try to add a new twist; or file an appeal to the Patent Office Board of Patent Appeals and Interferences in an attempt to persuade the Board to reverse the Examiner's decision.

Fortunately, in most cases the application is allowed and the patent is issued with at least some of the claims which may have been amended and have a different scope of coverage than as originally filed. During the entire examination process, also known as the prosecution of the patent application, the inventor is involved with the attorney in preparing the Responses, if the attorney needs help or if the inventor requests participation.

Once the claims have been allowed by the Examiner, a formal Notice of Allowance is sent, and the issue fee must be paid within three months or the application will be abandoned. After the issue fee is paid, the application issues as a patent within approximately three months. Just prior to the issuance, an issue receipt is provided which indicates the future date on which the patent is to issue and the number which it will be assigned. The patent issues on a Tuesday, and a representative drawing and claim is published in the Patent Office Gazette on that same Tuesday. Maintenance fees must be paid 3½, 7½, and 11½ years from the issue date or the patent lapses and is unenforceable. Patents are not renewable.

## REGISTERING A TRADEMARK

Federal trademark and service mark registrations are applied for with an application that sets forth the name of the owner of the mark and the owner's address and state of incorporation, if it is a corporation. The application must describe the goods to which the mark is applied or the services in connection with which the mark is advertised. The application must also state the date when the mark was first used on the goods or in connection with the services in interstate or foreign commerce. Finally, the application must state the manner in which the mark is used on the goods, on labels applied to the goods, on tags attached to the goods, or in newspaper advertisements, store signage, promotional letters, cards, or brochures advertising the services. The application also includes

a drawing of the mark and a number of specimens of the mark as it is actually used. The application signed by the owner of the mark is forwarded to the US Patent and Trademark Office with a transmittal letter and self-addressed postcard similar to those that accompany a patent application.

If the mark is not yet in use, an "intent-to-use" application is filed. This allows an applicant to begin the registration process before actually using the mark in commerce and actually confers greater rights on the applicant as against a party who actually used the mark first but after the applicant filed the intent-to-use application.

The intent-to-use application is examined and processed just as a normal application. The Trademark Examiner reviews the case to determine whether the description of goods or services, specimens, classification, drawings of the mark and other formalities are met. The Examiner also determines whether the mark is arbitrary and fanciful or is suggestive and so is registrable, or is descriptive of the goods or services or is generic, in which case it is not registrable. Finally the Trademark Examiner does a search to see if there are any other existing similar marks for similar goods which would bar registration of the mark applied for. The Examiner issues a letter or Office Action to the applicant relating any rejections of the mark and giving the reasons for the rejection. The applicant is required to file a Response, usually within six months, which attempts to overcome the Examiner's problems with the application either by amending the various parts of the application or by legal argument. This cycle of rejection and response may occur a second time, after which registration of the mark is either allowed or finally refused. (That the US Patent and Trademark Office refuses to register your mark does not mean you cannot continue to use your mark or that you cannot sue infringers who copy your mark and use it in connection with similar goods or services.)

Assuming that the application is allowed, then the next step is the publication for opposition of the mark in the weekly edition of the Official Gazette—Trademark. For thirty days from the date the mark is published for opposition in the Gazette, which issues on Tuesday of every week of the year, any interested party who is harmed by the registration of the published mark can oppose its registration by filing a Notice of Opposition in the Patent and Trademark Office similar to a Complaint in a court of law. The opposition proceeds as an administrative "trial" to determine whether or not the opposer or the applicant is correct, and as a result the mark is either refused registration or is registered.

During the fifth year after registration, an affidavit must be filed stating that the mark is still in use. If the mark was registered on the Principal Register, a separate affidavit is filed to make the mark incontestable. The registration may be renewed every ten years as long as the mark is in use.

It is wise to have a search done before adopting a new mark. If a mark is adopted and later it is found that someone else has greater rights to the mark due to earlier use, there is a grave loss to you, the latecomer. First, you will not be able to register your mark. But even worse perhaps is the realization that all the printing, catalogs, advertising, specification sheets, brochures, and other promotional materials and efforts and expense in promoting your business under that mark are all wasted when it becomes necessary to change the name or symbol. To help avoid this, a preliminary registrability search is performed at some level depending on

budget constraints and the applicant's familiarity with the industry. One search scans the marks in the US Patent and Trademark Office and the trademark registers of the fifty states. Another includes those areas but adds the one million+ Dun & Bradstreet company name index, telephone books of the forty largest US cities, and industry reports, journals, indexes and the like.

If another party has registered or used a particular mark, it does not absolutely preclude your company from using and registering the same or a similar mark, unless such use or registration is "likely to cause confusion." Determining whether a likelihood of confusion exists depends on an analysis of various factors, including the similarity or dissimilarity in sound, appearance and meaning of the marks themselves, the relationship of the goods or services in connection with which the marks are used, the sophistication of potential purchasers for such goods and services, and the strength of the prior mark (resulting from years of use, uniqueness of the mark, extent of advertising, etc.)

Be aware of the possibility that prior trademark rights may have been acquired by users who are not disclosed by the trademark search report. Although a search offers fairly extensive coverage, it is not capable of picking up every use of a given trademark.

In a preliminary trademark search, the search is still only a preliminary screening tool for finding a clear trademark. Certain registrations and marks that are not registered but are rightfully in common law use may not be covered in this search. Finally, there is the consideration that this is merely a preliminary trademark search and must be done within acceptable cost limits.

## REGISTERING A COPYRIGHT

A copyright application is filed with the Copyright Office and requires certain specific information. Every application requires the title of the work, the name of the author or authors, and if the author or authors is a person, the date of birth and death of the person(s). If the person who actually created the work is a bona fide employee, then the employer is listed as the author. The date when the work was created must be given and the date when the work was first published if it is a published work. If the applicant for the registration is not the author but acquired ownership through a transfer or assignment, that must be noted. If the work sought to be registered by this application is derived from or is a compilation of one or more prior works, this must be revealed and the underlying works identified. The application may be signed by the applicant or its attorney or agent. Copies of the work generally are submitted with the application to the US Copyright Office.

In copyright applications, unlike in patent and trademark applications, there is no examination with respect to prior existing works. All registrations in the Copyright Office are categorized by title, not subject. One could not do a search for all poems relating to trees. Of course, if the Examiner recognizes the work as one already credited to another author or in the public domain, for example, an applicant seeks to register the poem "Twinkle, Twinkle, Little Star", the Examiner will reject it over the well-known work. The Copyright Office Examiner, however, reviews the application for formalities to be

sure all the required information has been submitted and that it is correct. Further, the Examiner considers whether the work represented by the information in the application and the accompanying copies is copyrightable and whether the work demonstrates at least a fundamental authorship, that is, originality and creativity.

If the Examiner has any problems with the application, a letter is sent to the applicant explaining the shortcoming or asking for more information. Within a few months after such a letter is responded to by the applicant, or if there is no such letter, within a few months of the filing of the application, the copyright registration issues. The duration of a copyright for an author, who is a person, is the life of that person plus fifty years. For an author who is a legal entity, the duration is one hundred years from creation or seventy-five from publication, whichever period expires earlier. Copyrights are not renewable.

## SOFTWARE PROTECTION

Protection for computer software has been the subject of debate for many years. At one time there was strong opposition to the award of patents for inventions embodied in or involving software. That is no longer the case. Now software is commonly patented. Copyright protection had been considered only for the coding. That, too, has changed. Now it is clear that copyright protection covers the coding, the literal aspects of a computer program, and also the nonliteral aspects, such as the sequence and flow, organization and structure of the software, the user interface, menus, and the like. Trade secret protection was available but only if you kept the software secret, which made it awkward to embrace copyright. Now the Copyright Office has a procedure whereby software copyrights are registered yet trade secrets contained in the software are specifically preserved. There is no excuse for releasing software without some sort of protection. Indeed, more than one form of protection can be acquired on the same software.

### Patent Protection

Broad patent protection is available for software. The scope of patent protection extends beyond merely the coding or routines, beyond the structure and organization, and beyond the user interface and menus of the program to the broad underlying concept or algorithm.

All manner of software is protectable by patent regardless of how it is perceived: as controlling industrial equipment or processes; as effecting data processing; or as operating the computer itself, for example.

Software that controls industrial equipment or processes is patentable; a system for automatically operating a rubber molding device used a computer, which was well known, to run a molding device, which was well known, too. The computer was programmed in accordance with a very well-known mathematical expression. The only thing that was new was the software, which controlled the whole system and opened the mold when the rubber part was properly cured. The software was the heart of the invention that automated that particular rubber molding device for the first time, and it was patentable. A software method of operating entire systems of cooperating manufacturing plants was also held patentable. There is nothing surprising about this. A patentable system

implemented in hardware should be no less patentable because it was also or alternatively implemented in software.

Software that effects data processing is patentable, too, even though no machines or processes are involved. It makes no difference that the resulting output, reports and documents of the software, are not themselves patentable or that the activity which the software replaces is not itself patentable. For example, software implementation of steps normally performed mentally may be patentable subject matter. Thus, although a method of doing business is not patentable subject matter, the software for operation of a computer to effect a business activity may be. For example, the software implementation of a system which automatically transfers a customer's funds among a brokerage Security Account, several money funds, and a Visa/Checking account automatically upon occurrence of preset conditions, was held to be patentable subject matter.

A software method of translating from one language to another (Russian to English) and a software method of preparing architectural specifications, which describe the various materials and techniques used in the construction of a building, were held patentable.

Many patents have been issued on data processing software for a system for registering attendees at trade shows and conventions; for a securities brokerage cash management system; for an automated securities trading system; for funding a future liability by an insurance investment program; for managing an auto loan; for optimizing industrial resource allocation; for automatically determining and isolating differences between text files (word processing); for returning to a specified point in a document (word processing); and for determining premiums for insurance against specific weather conditions.

Software that operates the computer itself is also patentable. A data structure for allowing the portions of the system base of a computer stored in scratch pad registers to be altered or repositioned without completely reloading the system base or using special software was held patentable. The structure employs a firmware module which directs the data transfer between the scratch pad registers and a system base located in main memory. Patents have issued on software for converting a source program into an object program; for programs which translate from one programming language to another; for a cursor control for a pull-down menu bar; for displaying images in windows on the video display; and for a computer display with window capability.

It does not matter that the software is composed of old routines if they are assembled in a different way and produce a different result, for it is well established in patent law that a combination of old parts is patentable when the resulting whole is new. Indeed, most inventions are a new assembly of well-known parts or steps.

To determine the patentability of a new piece of software one need consider only the underlying concept or algorithm and compare it to existing competitive software. This is done by reducing the software to a flow chart differs from similar illustrations for competitive systems, then it is possible that patent protection is available. If this new software product is an important one, then patent protection should be investigated.

Design patents are also used to protect software. Design patents have been issued for visual features produced on the

screen by the computer software, such as various screen display icons, for example, an icon for a telephone display.

A software patent must contain a written description of the software in such full and clear terms as to enable a person skilled in the art to which the software pertains to create and use the invention. Without sufficient disclosure, the patent will be held invalid, and all remedies against infringers will be lost.

To avoid such problems, those patenting computer software should provide (1) complete flow charts of the system; (2) actual coding or instructions for coding where the coding is not routine; and (3) a clear explanation of the preferred hardware and how the hardware operates with the software to produce the desired results.

### Copyright Protection

Copyright protection for software, although not as broad as patent protection, nevertheless, is quite broad. Copyright protects against the copying of the coding and also against the copying of the organization and structure. That is what "look and feel" is all about. If a subsequent developer creates software that looks and feels like earlier copyrighted software there is infringement, whether or not the coding of the two are similar. Thus it appeared to some that the very idea of a program could be protected.

Some in the industry were in favor of such strong protection, because it would do away with the need to license every piece of software to every customer, such as by using "shrink wrap" licenses. The industry could rely solely on copyright protection the way the recording and film industries do. Others felt that such broad protection would completely stifle creation and development of new software products because, once a basic product such as a spreadsheet or word processor was launched, all others would be foreclosed.

But "look and feel" really embraces neither extreme. Copyright does not protect the idea behind the software. It protects only the form of the expression of the idea. For example, a copyright on a book which teaches how to turn lead into gold cannot prevent a reader from applying the teachings of the book to make gold from lead. That is the idea. However, if the reader places the book on a photocopier and makes copies of the pages, then the copyright is infringed. That is the form of the expression. But that does not mean that infringement is avoided simply by rewriting the book in different words. And the copyright in software cannot be defeated simply by avoiding copying the code line for line. What the "look and feel" theory really does is make clear that copyright protection for software prevents copying nonliteral and literal elements. The literal aspects of a program, the source code, object code and flow chart, are copyrightable. The nonliteral elements, which include the overall organization of a program, the structure of its command system, and the presentation of information on the screen, are also protected by copyright.

A simple three-part test has been suggested for determining infringement under the "look and feel" doctrine: first, determine what the idea of the program is, so that it can be distinguished from the expression; second, determine whether the particular expression of the idea is the only way to express the idea or whether there are other ways to express the

idea; and third, determine whether or not the elements of the expression have been substantially copied.

The heart of the test is step two. Under step two, proof that the particular expression of the program is not the only expression of the idea is established by showing that other overall appearances, structures and sequences of audio-visual displays can be used, that the particular titles, menu screens, typefaces and instructions are only one choice from a wide range of expression. The existence of similar products of other parties can establish that, as can proof that the software has been customized in different ways for different purchasers.

The look and feel investigation focuses quite literally on the visible impact of the software and the sequence or flow of the action. For example, courts have examined the menu structure, the order of commands in each menu line, the choice of letters, words, or "symbolic tokens" to represent each command, the presentation of these symbolic tokens on the screen (e.g., first letter only, abbreviations, full words, full words with one or more letters capitalized or underlined), the type of menu system used (e.g., one-, two-, or three-line moving-cursor menus, pull-down menus, or command drive interfaces), and the length of the prompts.

Courts have also examined labeling, single line boxes, reverse video cursor, alternative highlighting or capitalized letter selection options, positioning of file, cursor location and window information across the top of the screen, the use of editing screens to edit and enter new data, the highlighting of the initial letter of each of the menus, and the form of the menu windows.

That some of these specific command terms are quite obvious or merge with the idea of such a particular command term does not preclude copyrightability for the structure taken as a whole. If particular characteristics not individually distinctive are combined to make the "whole" a distinctive expression of an idea, one of many possible ways of expressing it, then the "whole" may be copyrightable.

The fact that the allegedly infringing software was written in a different programming language and/or for different hardware does not avoid the application of the look and feel theory. If the user interface and functions are similar, infringement is likely.

It is not by chance that the touchstones of the courts' investigation into look and feel are the visually perceived features of the program. In early software infringement cases, the complex task of mastering the details of the coding structure to determine copying naturally gave way to the somewhat more understandable approach of examining the result of the coding, the user interface on the screen. And the fact that many of the early software infringement cases dealt with video games, whose significant value was in the displays, created even greater impetus in that direction.

These video game cases established that an audiovisual display is appropriate for copyright protection even if the underlying computer program is not copyrighted. Further, these cases held the owners and operators of the games liable for copying of the audiovisual scenes, and also the electronic assemblers and manufacturers who made the printed circuit boards containing the ROMs with the underlying coding, which often was not itself copyrighted.

Even where the idea of the game itself was unprotectable, the courts found the expression of the game in the shapes, sizes, colors, sequences, arrangements and sounds of the

game protectable. The seeds of the tests used in look and feel were sown in analyzing video game copyright infringement. The video game decisions introduced the notion that one must determine whether the similar forms of expression used by the alleged infringer are those that simply cannot be avoided, that is, the expression and idea are merged, or there are other ways to express the idea.

The cross-protection between the display and the coding became confused when some courts held that the copyright in one did not protect the other. Each was the subject for separate copyright protection. The US Copyright Office stepped in and settled the matter by promulgating new rules for copyright registration establishing that all copyrightable expression embodied in a program, including the screen displays, is to be registered as a single work. Such a single registration is sufficient to protect the copyright in a computer program, including related screen displays, without need to refer in the copyright to the displays. Such a registration covers all copyrightable material contained in the computer program and screen displays even if only some or no identifying material for the screens is presented. In fact the author is invited to decide whether the dominant authorship is in the coding or in the pictorial/graphics and to use the application form appropriate to that type of work.

All forms of programs can be protected, flow charts, source programs, assembly programs, object programs. And it makes no difference whether the program is an operating system or an applications program. No distinction is made between the copyrightability of those programs which directly interact with the computer user and those which, unseen, manage only the computer system internally. Beyond that, protection is afforded for microcode or microprograms which are buried in a microprocessor and even for those programs embedded in a silicon chip. Databases are also protected by copyright. The input of a copyrighted database into a computer results in making a copy and so there is copyright infringement. It does not matter that the data copied from indices and graphs or maps is rearranged not as another book or visual aid, but as an electronically stored database. It is infringement. And this is so even if new and different maps, graphs, and text are produced from it by the computer. Even more subtle problems have occurred regarding databases. The purveyor of a computer program that permits users to access and analyze the copyrighted database of another was liable for copyright infringement because, first the program had to copy portions of the database to analyze the data.

Noting the dynamic, changing nature of databases, the Copyright Office has instituted a regulation to permit streamlined registration every three months of all automated databases and their updates or other revisions.

Some interesting twists have arisen in software copyright infringement cases. In the case of video games, enhancements, such as speed-ups, infringe because the final display either looked like or used the coding of the original copyrighted work. In another case where a consultant developed a program to remove unwanted governors in a copyrighted program used by the consultant's customers, the owner of the copyright charged infringement and won, because the copyrighted program had to be printed out to find and remove the governors. That was copying.

An owner of a copy of a copyrighted program is permitted to copy the program in the course of adapting it for his own

use. In the process of adapting it, it is permissible to translate the program from one language to another or to add new features. However, the owner of the adapted program cannot offer copies of the adapted program for sale, nor can it be offered for resale as the original. Even more sensitive is the question of who did the adapting. If it was an outside consultant, the consultant's work must be clearly defined and authorized by the owner of the copy, or the consultant will be liable for copyright infringement.

The delicate balance of how much help the owner of a copy of a copyrighted program can receive from a third party before the owner of the copyright charges infringement was demonstrated in a case in which a monthly magazine published twelve to fifteen programs in each issue that its readers had permission to copy into their computers. When an enterprising fellow typed all of the programs into his computer, copied them onto disks, and sold copies to the readers, the magazine charged infringement and won, even though it seems clear that there would have been no infringement if a reader had hired the fellow specifically to type in the programs for that reader.

It is well accepted that merely translating a program from one computer language to another does not avoid infringement. But it appears that translating a concept from English text to a computer program is also infringement. A copyrighted book contained a step-by-step method for trading in commodities. When a competitor wrote a program that carried out the method in the book, it was held to be an infringement of the copyright in the book. The court said that the source code was not an entirely new, unique expression of ideas. It was simply a translation from one language, English, into another, the computer language! It has even been held that the description of a computer program, not the program itself, in a written proposal is an infringement of the copyright in the program.

Another area of interest is security programs. Security programs are those installed on a disk to prevent copying all of the other programs on the disk. Disks containing the security program were sold to software producers who placed their programs on the disk and sold them to customers. An enterprising programmer wrote a program which disabled the security program so customers could copy the protected program. This activity did not constitute infringement. The security program was not being copied; only the protected programs were and they were not in issue.

One of the potentially most troublesome areas of copyright protection for software is that of authorship and title. Who created the program and who owns it? This is particularly so because much of the development work in the software industry involves consultants, not just employees. If an employee creates the software, the employer owns the copyright even without a written agreement and has full control over copying and selling the software. If a consultant, however, creates the software without a contract that assigns title, the consultant owns the copyright and controls the copying and selling of the software. All the employer gets is the use of the single copy that the consultant developed for the employer. The law is clear. And for a person to be designated an employee under copyright law, the person must be a real employee. Full time work at the employer's premises, salary, withholding, FICA, benefits, all are examined. The simple and only sensible way to avoid serious unexpected loss of rights is by contract exe-

cuted between the employer and the consultant to define ownership before any work begins and any consideration is paid.

Registering a copyright in software where trade secrets are not involved is relatively straightforward. The copyright owner need only submit a completed application for registration along with the source code of the software for deposit in the Library of Congress. When the code is more than fifty pages in length, only the first and last twenty-five pages need be submitted. If the software contains a copyright notice, then the page or portion bearing the notice should be included. Notice should appear on the title screen produced by the software; on the media itself, such as on labels or jackets on disks; in the coding itself so it appears on any printout of the program; and in any accompanying documentation. In cases where a user's manual normally accompanies the software, then a copy of that should also be submitted.

If the owner of the copyright will not or cannot supply the source code for deposit, the Copyright Office will accept the object code, accompanied by a written statement that the work embodied in the object code contains copyrightable authorship. The Copyright Office will then grant registration, but with the warning that the work is registered under the "rule of doubt", that is the Copyright Office has not determined the existence of copyrightable authorship in the work.

### Trade Secret Protection

Software is also protected through a trade secret approach, separately or overlapping with patent and copyright protection. All information disclosed in a published copyrighted work is in the public domain. The contents or ideas may be used without restriction, even though the form of the work may not be copied. But when a software developer sold software that bore both a copyright notice and a trade secret warning legend which prohibited unauthorized use or disclosure, the trade secrets in the software were protected. The customer had no right to rely on the existence of the copyright notice on the work as a representation that the work has been generally published and that therefore the contents cannot qualify as a trade secret.

There was no inherent conflict between the copyright law and trade secret law, because the former protects the form of the work and the latter protects the contents or ideas of the work. The fixing of a statutory notice of copyright to a document does not automatically prevent the owner from subsequently asserting that the documents have not been generally published but instead contain subject matter which is a trade secret.

Difficulties also arise in situations when the customer claims trade secret rights in the software and the developer/consultant contends there are none. In one such case the developer defeated the trade secret claim by showing the system used a number of off-the-shelf subroutines and some that it had developed for other customers.

The US Copyright Office fully recognizes the compatibility of copyright and trade secret protection. Its rules provide special filing procedures to protect trade secrets in the software.

Copyright owners who wish to protect their trade secrets but avoid clouding their registration with a "rule of doubt" approach have a number of options. In addition to the page containing the copyright notice, if there is one, the deposit for copyright may include (a) the first and last twenty-five pages

of source code with portions blocked out; (b) the first and last ten pages of source code in their entirety with no blocked out portions; (c) the first and last twenty-five pages of object code and any ten or more successive pages of source code with no blocked out portions; or (d) when the program is no more than fifty pages in length, the entire source code with the trade secret portions blocked out.

The permissible blocking out of portions of the source code includes “striping,” the practice of blanking out vertical or diagonal stripes of the printed code so that the copyrightable expression is partially obscured. The part that is not blocked out must constitute more than the part that is blocked. There must be visible a significant portion of the source code sufficient to permit the Copyright Office to determine that a copyrightable work is present.

## CONTRACTUAL PROTECTION

Frequently when a person thinks of protecting his new idea or product, his thoughts go to patents, trade secrets and copyrights. But the game can be won or lost long before the opportunity to establish those forms of protection. That is why the fundamental forms of protection are so important, confidential disclosure agreements, employment contracts, and consultant contracts. Whether or not an idea or product is protectable by such exclusive statutory rights as patent or copyright, there still is a need, at the early stages before such protection can be obtained, to keep the basic information confidential to prevent public use or disclosure which can result in the loss of rights and/or inspire others to seek statutory rights before you can. Confidential disclosure agreements, employment agreements, and consultant agreements, have some things in common. They define the obligations of the parties during the critical early development states of a new concept, product, or process. They are often overlooked until it is too late: the relationship is well under way, and a problem has arisen.

Before a patent, copyright or trade secret is obtained, even before the occurrence of the idea that gives rise to them, all rights can be lost if the proper preliminary steps are not taken. That is why, for proper protection of the business, there must be agreements with employees, consultants and even in some cases with suppliers and customers to keep secret all important information of the business and to assign to the business all rights to that information.

Often it is thought that only technical information can be protected. This is not so. Ideas for new products or product lines, a new advertising or marketing program, a new trademark, the identity of a critical supplier, a refinancing plan, are all protectable information and can be even more valuable than the technical matters when it comes to establishing an edge over competition and gaining a greater market share.

Employment contracts, consultant contracts, and confidential disclosure agreements, all should be in writing and signed before the relationship begins, before any work is done, before any critical information is exposed, and before any money changes hands. A business must not be in such a rush to get on with the project that it ends up without full ownership of the very thing it paid for. And the employee or consultant or other party must know clearly at the outset

what he is giving up in undertaking this relationship with the company.

## Employment Contracts

Employment contracts must be fair to both parties, should be signed by all employees, at least all employees who may be exposed to confidential company matters or may contribute ideas or inventions to the business, and they should be short and readable.

Employment contracts, like all agreements, must have considerations flowing both ways. In an employment contract, the consideration from the employee is all of those promises to keep secrets and assign ideas and inventions. The consideration from the business is to employ the employee. Thus it is best to present these contracts to the prospective employee well before he begins work. After the job begins, the consideration is the employee’s “continued” employment and that sounds a bit threatening. Although “continued” employment is certainly proper consideration, in construing these contracts, courts can decide that the employer has the superior bargaining position and so courts generally like to know that, at the point the contract was offered for signature, the employee had a fair opportunity to decline without suffering severe hardship.

One of the most important clauses in an employment contract is the agreement of the employee to transfer his entire right, title, and interest in and to all ideas, innovations, and creations to the company. These include designs, developments, inventions, improvements, trade secrets, discoveries, writings, and other works including software, databases, and other computer related products and processes. The transfer is required whether or not these things are patentable or copyrightable. They must be assigned to the company if they were made or conceived or first reduced to practice by the employee. This obligation should adhere whether or not the employee was working alone or with others and whether or not during normal working hours or on the company premises. So long as the work is within the scope of the company’s business, research, or investigation or the work resulted from or is suggested by any of the work performed for the company, its ownership must be assigned to the company.

This clause should not seek to compel transfer of ownership in everything an employee does even if it has no relationship to the company’s business. An engineer employed to design phased array radar for an electronics company may invent a new horseshoe or write a book on the history of steeplechase racing. An attempt to compel assignment of ownership in such works to an employer under an employment agreement could be seen as overreaching and be refused enforceability. Overreaching could also jeopardize a clause which seeks to vest in the employer ownership of inventions, innovations, or other works made for a period of time after employment is ended or before employment begins.

Ancillary to this transfer or assignment clause is the agreement of the employee to promptly disclose the inventions, innovations, and works to the company or to any person designated by the company and to assist in obtaining protection for the company including patents and copyrights in any and all countries, as the company sees fit. At this point the employee also agrees to execute patent applications, copyright applications, to execute assignments of issued patents and



copyright registrations, and to execute any other documents necessary to perfect the various properties and vest their ownership clearly in the company. If these activities are called for after employees have left the company, they are still obligated to perform but must be paid for time and expenses.

Another important concern is moonlighting in related work areas. To prevent this, the employee agrees in the employment contract that, during his employment by the company the employee will not engage in any employment or activity in which the company is now or may later become involved.

A notion closely related to this is a noncompetition provision whereby the employee agrees not to compete during his employment and for some period after he leaves the company's employ. This is a more sensitive area. It may be perfectly understandable that a company does not want its key salesman, an officer, or manager, the head of marketing or engineering to take a job with a competitor and have the inside track on the company's best customers, new product plans, manufacturing techniques, or new marketing program. But the courts do not like to prevent a person from earning a livelihood. Courts do not compel a lifelong radar engineer to turn down a job with a competitor in the same field and take a job designing cellular phones. A person who spent his life in marketing and selling drapes and curtains cannot be made to sell floor coverings or used cars. However, the higher up and more important people are in running the company, the greater is the probability that they will be prevented from competing, especially if the employment agreement specifically provides for it. Officers, directors, founders, majority investors and other key personnel have had such provisions enforced against them, but even then the scope of the exclusion must be fair and reasonable in both time and distance. A few months, a year or even two years could be acceptable depending on how fast the technology and market is moving. A worldwide exclusion might be acceptable for a salesman of transport airplanes. In the restaurant business, a few miles might be all that is acceptable. A contract that seeks to extend the exclusion beyond what is fair typically is not enforced.

One way to ensure that ex-employees do not compete is to provide that the company employ them on a consulting basis over some designated period of time. In this way the involvement in critical information areas can be phased out so that by the time the employees are free to go to a competitor they are no longer a threat and at the same time the ex-employees are being fairly compensated.

Bear in mind, however, that even if ex-employees are free to compete, they are not free to take with them in memory or recorded form, any trade secrets, confidential or proprietary information of the company or to use it or disclose it in any way. To reinforce this the employment contract would provide that the employees will not during their employment or at any time thereafter disclose to others or use for their own benefit or the benefit of others any trade secrets, confidential or proprietary information pertaining to any of the businesses of the company, technical, commercial, financial, sales, marketing or otherwise. The restriction could also protect such information pertaining to the business of any of the company's clients, customers, consultants, licensees, affiliates and the like.

Along with this the employment contract provides that all documents, records, models, electronic storage devices, proto-

types, or other tangible items representing or embodying company property or information are the sole and exclusive property of the company and must be surrendered to the company no later than the termination of employment or at any earlier time upon request of the company. This is an important provision for both the employer and employee to understand. The employees may not take away, use or disclose trades secrets, confidential or proprietary information in their memory or in physical form without subjecting themselves to serious legal sanctions. In some states the law imposes serious criminal sanctions and fines for removing tangible trade secret property.

Another potential area of conflict is employee raiding, the hiring away of employees by an ex-employee who is now employed by a competitor or who has founded a competing business. This is a particularly sensitive situation when the ex-employee holds a position of high trust and confidence and was looked up to by the other employees now being hired. And it is particularly damaging when the loss of the employees being seduced is critical to operations either because of their expertise or their sheer number. In all circumstances such an outflow of employees is threatening because of the potential loss of trade secrets and know-how to a competitor.

One of the most hazardous areas of ownership is that dealing with title to copyrights. If a copyrighted work is created or authored by an employee, the company automatically owns the copyright. But the employee must be a bona fide employee, that is, there must be all the trappings of regular employment. If a dispute arises over ownership between the company and the author, the courts will seek to determine whether the author was really an employee. Was a full work week, benefits, income tax withholding, unemployment insurance, workmen's compensation, an office or workspace provided for this person? If the author was anything less than a full employee, the copyright in the work belongs to the person. It does not belong to the company!

This means that, if the company hires a part-time employee, a consultant, a friend, a relative or moonlighter or your Uncle George, that person, not the company, ends up owning the copyright on the work. Thus when that nonemployee completes that software system which will revolutionize the industry and bring income cascading to the enterprise, that person, not the company, owns the copyright, that is, the company owns the embodiment of the system that the employee developed for the company but the nonemployee, not the company, owns the right to reproduce, copy, and sell the system over and over again.

### Consultant Contracts

Consultant contracts should contain provisions similar to those in an employment contract along with some additional provisions. A consultant agreement should clearly define the task for which the consultant is hired: research a new area, analyze a problem, solve a problem, design or redesign a product, set up a production line, assist in marketing, sales, management, technical or financial matters. It is important to show why the consultant was hired, what the consultant is expected to do, what the consultant may be exposed to in the way of company trade secrets, confidential and proprietary information, and what the consultant is expected to assign to

the company in the way of innovations, inventions, patents, and copyrights.

An important feature of a consultant contract is the time when the task will be completed. There should be stepping stones or tunable benchmarks so that both parties know what has to be achieved and by when. Goals such as time, specified achievements, or total solution should be set forth. Payment terms must be clearly stated, both the amount and the plan of payment. Is the payment to be based on passage of time or on specified achievements or milestones? There should be a reporting process clearly delineating when reports are due, initial, interim and final; their form and content; and the keying of payments to the timely receipt of satisfactory reports. Another area to be clarified is Who will actually do the work, the consultant or one of his employees or apprentices?

Clearly a company hiring a consultant wants to own the result of whatever the consultant was hired to do just as in the case of an employee. But in the case of a consultant, his stock in trade is his expertise and his ability to solve problems swiftly and elegantly in his specific area. Sharp lines must be drawn as to what the consultant must and will not assign to give both parties peace of mind. In any task in which software is part of the solution, the ownership problem is magnified. Commonly, a software system uses many different routines and subroutines, some of which the consultant may have used before and may intend to use again. Who will own them? The company wants to secure the position which it identified and hired the consultant to assist with. But the consultant cannot afford to assign away rights which will prevent earning a living in the future. Closely related to this is the problem of preventing a consultant from working for a competitor or a customer. It would be suicide to hire a consultant who, after solving the company's problem, is free to move on and simply reapply the information learned at the company to solve the same problem for a competitor (who may not have even been aware of the problem) or teach a customer how to do certain tasks for itself that the company previously did for that customer. Sometimes, the work opens up a whole new door for the consultant by revealing a problem the consultant never knew existed until the company identified it and hired the consultant to investigate it or solve it. Consultants are also uncomfortable in these situations. A consultant's reputation for honesty and ethical dealing is essential to success. But freedom to consult to others is also important. If a consultant has a niche in designing a certain type of machinery, the consultant must be allowed to continue to work in that field. Good fences make good neighbors. Define the boundaries early and precisely.

In addition to careful delineation of these troublesome areas, the approach of a joint endeavor could work. The newly identified problem or new solution to an old problem would be owned by one party, the one best situated to exploit the market, and the profits shared between them: ownership in the company, royalties to the consultant. Such a sharing arrangement can work where a consultant whose expertise the company really needs balks at providing a solution that will bring the company millions of dollars in cost savings or increased profits for payment of only a few hours of consultant time.

Consulting relationships by their nature expose each of the parties to a great deal of the other party's trade secret, confidential, and proprietary information. The company protects itself with clear definitions of the pertinent information and by employing the usual safeguards for trade secrets and also

limits disclosure of only what is necessary for the consultant to do the job, and also limits the consultant's freedom to use the information for others and to disseminate the information. The consultant is protected in the same way to prevent the company from misappropriating the consultant's special knowledge, problem solving approaches, and analytical techniques.

An often overlooked area is the ownership of the notes, memos, and failed avenues of investigation. False starts and failures can be as important as the solution, especially to competitors. Related to this is the question of the ownership of the raw data. The raw data can be extremely valuable in its own right and it may also be used to easily reconstruct the end result of the consultant's work, for example, a market survey.

Finally, the company and the consultant should be sure that the consultant is free to engage in the work the company needs done. A consultant may warrant performance. The consultant may identify any similar work and any potential or actual competitors or customers worked for. The company and consultant should review the pertinent parts of previous agreements to see that the consultant is not violating them in doing this work for the company. The consultant may agree not to use information, ideas, designs, or routines for this job that he previously used for others who may claim superior rights.

### Confidential Disclosure Contracts

Wherever an idea, information, an invention or any knowledge of peculiar value is to be revealed, a confidential disclosure agreement should be signed by the receiving party to protect the disclosing party. The disclosure may be necessary to interest a manufacturer in taking a license to make and sell a new product; to hire a consultant to advise in a certain area; to permit a supplier to give an accurate bid; to allow a customer to determine whether or not it wants a product or wants a product modified; to interest investors to invest in the business. Such agreements are important to protect the knowledge or information itself and also to preserve valuable related rights, such as domestic and foreign patent rights. These agreements should be short and to the point.

Basically the receiver of the disclosure should agree to keep confidential all information disclosed to it. Information is defined as all trade secrets, proprietary and confidential information, whether tangible or intangible, oral or written, of whatever nature, for example, technical, sales, marketing, advertising, promotional, merchandising, financial, and commercial.

The receiver should agree to receive all such information in confidence and not to use or disclose the information without the express written consent of the company. It should be made clear that there is no obligation incurred by the receiver for any information which it can show was in the public domain, or which the receiver already knew, or was told to the receiver by another party.

The receiver should be limited to disclosing the information to only those of its employees who need to know to carry out the purposes of the agreement and who have obligations of secrecy and confidentiality to the receiver. Further the receiver should agree that all of its employees to whom any information is communicated are obligated under written employment agreement to maintain secret information. The

receiver should also represent that it will exercise the same standard of care in safeguarding this information as it does for its own and in no event less than a reasonable standard of care. This latter phase is necessary because some businesses have no standard of care or a very sloppy attitude toward even their own important information.

Provision should be made for return of all tangible embodiments of the confidentially disclosed information, for example, drawings, blueprints, design, parameters of design, monographs, specifications, flow charts, sketches, descriptions, and data. A provision could also be included to prevent the receiving party from entering a competing business or introducing a competing product or service in the area of the disclosed information. Often a time limit is requested by the receiver after which the receiver is free to disclose or use the information. If acceptable, such a time period could extend from a few months to a number of years depending on the life cycle, tendency to copy, competitive lead time, and other factors in a particular industry. Strong, clear language should be used to establish that no license or any other right, express or implied, whether or not it results in a patent or copyright, is given by the agreement.

Although such confidential disclosure agreements between the discloser and receiver are the ideal, they are not always obtainable. Often the receiver argues that no such agreement is necessary, saying, in effect, trust me. Or the receiver may flatly refuse on the grounds that it is against the receiver's policy. Some large corporations turn the tables and demand that their *nonconfidential* disclosure contract be signed before they receive any information. Under such idea submission agreements, the discloser gives up all rights to the ideas except as covered by a US patent or copyright. Outside of those protections, the receiver is free to use, disclose, and do whatever it wishes with the information. This is not simply arrogance or orneriness. A large corporation has many departments and divisions where research and development of new ideas is occurring unknown to other areas of the corporation. In addition, in a number of cases, courts have held corporations liable for misappropriating ideas and information when no written agreement existed and even where a *nonconfidential* disclosure agreement purported to free the receiver from any restriction against disseminating and using the idea.

If no agreement can be reached or the Nonconfidential Disclosure Contract counteroffer occurs, the discloser must decide whether to keep the idea in his mattress or take a chance on the honesty of the receiver while paring initial disclosure down to a minimum to cut the losses should a careless or unscrupulous receiver make public or misappropriate the idea.

## LICENSING AND TECHNOLOGY TRANSFER

A license is simply a special form of contract or agreement. Each party promises to do or pay something in return for the other party doing or paying something, too. Those contracts that deal with transfer of technology, or more broadly, intellectual property, patents, trade secrets, know-how, copyrights, and trademarks, are generally called licenses. The licensed property can be anything from the right to use Mickey Mouse on t-shirts, to make copies of the Star Wars movie, to the right to operate under the McDonald's name, to use a patented method of making a microchip, or to reproduce, use, or

sell a piece of software. Basic to licensing activity is of course a valuable property right to be licensed. Typically this is a patent, copyright, trademark, or trade secret.

### Typical Provisions

Typically the term license refers to a number of different types of contracts involving intellectual property, including primarily an assignment, an exclusive license, and a nonexclusive license.

An assignment is an outright sale of the property. Title passes from the owner, the assignor, to the buyer, the assignee. Assignments take a number of forms. An entire patent can be assigned including all the rights under the patent. It can be an undivided fractional portion of all the patent rights (i.e., 30% undivided interest). It can be all the rights embraced by a patent limited to any geographical part of the United States.

A license is more like a rental or lease. The owner of the property, the licensor, retains ownership. The buyer, the licensee, receives the right to operate under the property right, be it a patent, trade secret, know-how, copyright, or trademark. An exclusive license gives the licensee the sole and exclusive right to operate under the property to the exclusion of everyone else, even the licensor. A nonexclusive license, in contrast, simply permits the licensee to operate under the licensed property but without any guarantee of exclusivity. If the licensor can find more licensees they can be licensed. Others may already be licensed. The licensor itself can operate under the property.

An assignment by definition is exclusive because the assignee is acquiring full right and title to the property. Many licensees prefer an assignment or exclusive license because they want a clear playing field with no competitors to maximize their revenue from the property and justify the license cost. Within either of these forms, exclusive license or nonexclusive license, a right to sublicense may be included, which is the right of the licensee to license others. This removes part of the licensor's control over the property and at the same time increases the licensee's liability for not only its own conduct and payment, but that of all its sublicensees too. A sublicense is an important and valuable right which is not automatically conveyed with the primary license right. It must be expressly granted. The term "transferable" in a license means that the license can be transferred as a whole along with the part of the licensee's business to which the license pertains. It does not confer the right to sublicense.

Licensors often prefer a nonexclusive license because it spreads their royalty income over a number of diverse licensees, thereby increasing the chances of a successful return. In addition, if the property is freely available to all credible businesses, then no one is left out or disadvantaged. All have an equal chance to compete, and the chances of a lawsuit from a rejected potential licensee are lessened.

Great care must be exercised to clearly define the property being licensed. Is it more than one patent or just one patent, or only a part of one patent? Is it just the trademark or the entire corporate image, names, advertising, and promotional scheme and graphics? If it concerns copyright, does it cover just the right to copy a book or other printed material in the same print form, or does it include the right to translate it into another language; adapt it for stage, screen or video; create derivative works; merchandise its characters and events

on T-shirts and toys? If it involves know-how or trade secrets, where are they defined? The licensee must be sure that it is getting what is wanted and needed. And a licensor must be sure to make clear the limits of the grant. In a software license if the grant is only to use the software, not to modify it or merge it with other software, that must be expressly stated.

Time limits must be unequivocally stated. When a patent is involved, care must be taken not to extend the term of the license beyond the expiration of the patents. Any such arrangement is considered an attempt to extend the patent right beyond the statutory period and can invalidate the license and make the patent unenforceable. Payments should be scheduled for postpatent expiration only if the totality of the business circumstances dictate, for example, if it was done to ease the payment burden and is not truly an extension of the patent exploitation.

If trademarks, copyrights, know-how or trade secrets are involved in addition to or instead of patents and the royalties and other considerations are based at least in part on them, then the patent term limit is not strictly applicable. In many cases, shorter license periods are preferred because it permits the licensor to reacquire control and the licensee to get out from under the burden sooner if the license is not working out. There is no time period on assignments. Assignments, like diamonds, are forever.

A license may have numerous, different limitations besides time. The unit quantity or the dollar value of products or services sold may be limited. Thus a licensee could be limited to production and sale of only a fixed number or dollar value of the potential product per month or per year. But this approach runs the risk of violating the antitrust law, if, for example, the licensor uses this limitation to control supply or prices in the market.

The license can also be limited geographically, that is, the licensee may be limited to making and selling a patented device only in a single county, state, or region. Care must be taken here, too, to avoid conflict with the antitrust laws. And it must be understood that the geographical limits apply only to the first sale. In the case of a patent, the licensee can only be restricted to making and selling the patented device in the designated territory. Once the licensee has parted with the product, no further control can be exercised over where it can be used or resold. Geographic limitations appear frequently in trademark licenses, especially those involving franchising.

Field of use limitations are quite common, too, restricting the licensee to exploiting the licensed property only in a designated field or market. For example, a license for technology relating to an engine may be limited to separate uses or sizes of engines for each different license. The division could be by use, such as lawn mowers, farm tractors, automobiles, boats and planes, or by size, such as 0–10 horsepower, 11–50 horsepower, 51–500 horsepower. If the licensed property is a trademark or copyright, the license might be limited only to wholesale or retail, or certain types of stores, such as discount stores, chain stores, supermarkets, or department stores. Or the limitation could be to the type of goods: toys, children's clothing, children's furniture, posters, a TV show, or a comic book serialization.

Clauses which require that a licensee buys certain supplies from the licensor as a part of the license agreement are often appealing to licensors, but they are not recommended. Such

provisions are commonly referred to as “tying” clauses and can violate the antitrust law. To compel a licensee to take one item in order to get another is anticompetitive. However, if there is a valid business reason it may be permissible: the patented machine will not work well without the proper quality supplies. But even in that case, the courts prefer that the licensor publish specifications that must be met and then let the licensee purchase its supplies from whomever it wishes so long as the specifications are met.

Avoiding tying is a common problem where the licensed property involves trademarks. Trademark licensors are compelled to monitor the product produced and sold or the service provided by the licensee to ensure that the public is getting the quality that the licensor has established for its goods or services. When a trademark is assigned or sold with the entire business to which it relates, no further supervision or control need be exercised by the original owner over the subsequent use of the mark. However, if the owner of the mark is merely licensing the mark to another, control must be exercised. Otherwise the transfer is deemed merely a naked license and constitutes an abandonment of the trademark. The rationale behind this is that, without the requirement of control, the right of a trademark owner to license a mark separately from the business in connection with which it has been used would create the danger that products bearing the same trademark could be of diverse quality. If the licensor were not compelled to take some reasonable steps to prevent misuse of his trademark in the hands of the licensees, then the public would be deprived of its most effective protection against misleading use of a trademark. The trademark would no longer be a guarantee of consistent quality established by the licensor. But even with such extreme burdens and consequences on the licensor, courts prefer the public specifications to tying.

The delicate issue of tying can arise in many ways: a licensor requires that a licensee take a license under a patent to get a license under a trademark or under a number of patents to get the one patent the licensee desires. Again, however, valid business reasons can excuse such behavior.

Perhaps the most universal concern in negotiating a license is: How do you assign a dollar value to intellectual property? First, you determine what it cost to acquire that property, to build that property. There is the research and development cost involved in coming up with a new invention. There is the design cost of coming up with a new trademark or copyrighted work. There is the cost of commercializing the invention. There is the cost of advertising and promoting the trademark or copyrighted work, which can run into millions of dollars a year, and there are always incidental costs, like the legal costs, engineering costs, and accounting costs. All of these are hard costs that went into creating the property.

Second, you can determine how this intellectual property affects the profitability of the product or the business. Can you charge more because you have a famous name or because of the new features that your invention has bestowed on the product? Can you cut costs because of the new technology of the invention? If you can, you determine dollar values for those figures.

You might also determine how much your intellectual property increases your gross revenues by opening new markets or by getting a greater percentage of established markets. All of these figures can be converted into dollar amounts for valuation.

Although a "typical" royalty rate for a nonexclusive license for patents, trade secrets, or know-how is universally stated to be 5%, that rule is honored in the breach as much as in the keeping. Nonexclusive license royalty rates in patent licenses can be 10, 20, 25%, or even higher. And exclusive license royalty rates are always higher because the licensee is getting total exclusivity, and the licensor is at risk if the licensee does not perform. Exclusive licensors generally demand initial payments for the same reason. In determining a reasonable royalty as a damage award in an infringement suit, courts have considered the remaining life of the patent; the advantages and unique characteristics of the patented device over other prior devices; evidence of substantial customer preference for products made under the patent; lack of acceptable noninfringing substitutes; the extent of the infringer's use of the patent; and the alleged actual profit the infringer made which is credited to the patent.

Trademark royalties vary widely with the scope of the rights converted from a mere license to a total business franchise package. Copyright royalties are in the neighborhood of 15% for authors of books and games including video games, but these, too, vary widely as a function of the nature of the rights conferred.

The length of time or term of the license is also critical in setting royalties. The longer the term, the longer the licensor is at the mercy of the licensee's ambition. This drives up the price, lump-sum, up-front payments, and royalty schedules. Geographical coverage counts, too. The more of his exclusive territory given up, the more the licensor will demand. Uncertainty in the market place for the licensed property due to an untested product, environmental concerns, or FDA approval drives down the price, whereas savings in manufacturing and sales costs, or a famous trademark, or a "hot new property" like E.T. drives up the price. A new feature that makes the product more appealing without great increase in cost also increases the royalty rate or up-front payment.

Care must be taken in setting the basis of the royalty. It is tempting to strike right at the heart of the matter and settle on a royalty, for example, of one half the savings or one tenth of net profit. But these are uncertain and changeable quantities which create the opportunity for mischief and misunderstanding. It is better to translate those values into the equivalent percentage of the selling price, the most visible and easily ascertainable figure. Separately, care should be taken to choose a fair and proper royalty base. It is generally not fair to claim a royalty on a one million dollar system based on the inclusion of a \$100 patented component. On the other hand, if that \$100 component is the very thing that makes the million dollar system work and makes it appealing and saleable, it may be unfair to measure the royalty only by the value of the \$100 component.

In any commercial agreement in which the consideration promised by one party to the other is a percentage of profits or receipts or is a royalty on goods sold, there is nearly always an implied promise of diligent and careful performance and good faith. But licensors generally seek some way to ensure that the licensee will use his best efforts to exploit the property and maximize the licensor's income. One approach is simply to add a clause in which the licensee promises to use his "best efforts." Another approach is to compel certain achievements by the licensee. The license may require a minimum investment in promotion and development of the prop-

erty, expressed in dollars, work hours or even specific stated goals of performance or sales. Or the simpler approach of a minimum royalty can be employed: the licensee pays a certain minimum dollar amount in running royalties annually, whether or not the licensee's sales actually support those royalties. Not a pleasant condition for the licensee, but a lot of peace of mind for the licensor.

Perhaps the best insurance for performance is a competent, enthusiastic licensee. A little preliminary investigation of the licensee for net worth, credit rating, experience, reputation, manufacturing/sales capability, prior successes/failures, can assuage a lot of fears and eliminate risky licensees. A reverter clause which evicts the licensee and returns control to the licensor upon unmet goals is the ultimate protection. Often the licensor's greatest concern is that the licensee might now or later sell one or more competing products so that a plain conflict of interest arises. A noncompete clause can prevent this, but antitrust dangers are raised by such clauses, and licensees do not like this constraint on their freedom. Other approaches are safer, for example, minimum performance levels.

The license should make clear that there is no implied grant under any other property of the licensor. But the licensor must be sure to convey in the license all the rights necessary to fully effect the purpose of the license. Granting a license under a patent while holding back on another dominant patent or important improvement patent invites trouble, and it could raise more serious issues of misrepresentation or fraud. Even selling a patented machine may imply a license to make the patented device produced by the machine.

Grant-back clauses are those that compel the licensee to assign or license back to the licensor any new properties developed by the licensee. Licensors do this so they will not be cut out of their own technology by the march of progress. Licensees object because they do not wish to perpetuate the dominance of the licensor nor to share the innovations that only they have funded. Antitrust issues can arise if the grant-back is of an assignment or exclusive license, especially if the licensor has a right to sublicense and uses this perpetual technology lifeline to control a segment of an industry. A mere nonexclusive license to permit the licensor to keep a level playing field is generally acceptable.

Generally each license includes a provision that the license is not transferrable by the licensee. The licensee cannot assign the license. This is done to prevent the licensor from suddenly having a licensee not chosen or approved, one who might be the largest and toughest competitor and whom the licensor would never have licensed. However, the constraint on transferability of the license is not without limitations. For example, the licensee may not agree to be prevented from transferring the license along with the sale of the business to which the license pertains. A right of first refusal to the licensor sometimes alleviates the problem, as do short license terms.

Very often licenses result from litigation or threatened litigation. Especially in these cases a release for past infringement should be included. This simply ensures that the licensee cannot be sued for damages before the date of the license.

A marking clause is normally required by the licensor. Such a clause requires the licensee to accompany each use of the trademark or copyright or each product embodying a

patented invention with a suitable notice identifying the patent number or announcing the trademark or copyright protection. This avoids any misunderstanding as to ownership of the property and also bestows certain rights against copiers not otherwise available. A patent infringer is not liable for damage if he had no notice of the patent, unless the patented product was marked with the patent number.

The desire for a fair and even playing field normally dictates the inclusion of a "most favored licensee" clause, which promises that, if a later licensee is given a license on better terms than an earlier licensee, then the earlier licensee has a right to insist on those better terms for itself.

A warranty clause compels the licensor to stall ownership of all right, title, and interest in the property necessary to undertake this licensing agreement and there are no other licensees (if this is an exclusive license), no other prior commitments, the government has no rights, and other similar assurances. Basically the licensor guarantees that he has the right to give what is being given.

Serious problems can arise when an infringement occurs. Who sues the infringer? Who pays for the litigation? Who chooses and controls trial counsel? Who shares in any recovery and how is it apportioned? All of these concerns are handled in one or more clauses under the heading of obligation to sue infringers.

Of no less importance is the handling of new properties created under the license. Who is to pay for the filing for new trademarks and copyrights and patents? Who chooses and supervises the patent attorney? The licensee may, as the licensor, wish to see the property strongly upheld in any litigation to strengthen the licensee's position against its unlicensed competitors. But there are conflicting interests here, too. Whereas the licensor wants to sustain his property against infringers, the licensee may hope that the scope of coverage of the property is narrowed or eliminated so that the licensee is free from the need for a license. The same conflict is possible in pursuing patent, trademark, and copyright protection initially. Broad coverage granted by the US Patent and Trademark Office or the Copyright Office benefits the licensor and an exclusive license but not necessarily a nonexclusive licensee.

The use of the licensor's name on or in connection with the licensed property should be clearly defined. In some cases the licensor desires that its name is used fully and properly. In other cases the licensor may allow using its name only in specific forms and in limited situations, or may not allow its name to be used at all. The licensee may have similar desires. These issues depend on the party's need to promote its name, on one hand, and to protect its reputation and limit its liability, on the other hand.

The responsibility for defending against, and indemnification for, product liability suits is a serious concern. A licensor can be liable for the deeds of its licensee if the licensor's technology is used in the product or even if only the licensor's name or trademark is associated with the product. A clause that defines each party's responsibilities and duties is useful to minimize disputes if such problems arise.

Confidential disclosure clauses are necessary in nearly every license agreement, especially those involving trade secrets, know-how, and patent applications. Such clauses are necessary in protecting the property, which is the subject of the license, and also of all the technical, business, financial, marketing, and other information that the parties learn about

each other during the license term and even during negotiations before the license is executed.

A clause defining adherence to government regulations is also a commonly needed provision. Who must obtain FDA approval? Who must obtain the export license? Approval from the State Department regarding the munitions list? Who is liable for the proper labeling? Importation taxes? Export fees?

There should be a clause that defines the circumstances, time, conditions, notice, under which each party can terminate the license. Typically the licensee can elect to terminate after some initial period of time, and the licensor can terminate upon any default in payment or other obligations by the licensee. Each party can terminate upon a breach of the agreement by the other. And the licensee normally terminates or expires automatically after a predetermined period.

No license is complete without reporting and payment provisions. The licensee must report sales or use of the licensed property periodically (monthly, quarterly) in written statements setting forth the number and dollar value of sales, for example, in the case of a patented product. Payment is made according to that report within a predetermined period. The licensor has the right to inspect the licensee's books at reasonable times to ensure that the reports are honest and accurate. Variations in the amount of royalties paid of more than some stated percentage, for example, 10%, often requires a penalty such as twice the deficiency, for example, or payment of all audit costs.

### Foreign Licenses

The foregoing clauses and concerns pertain generally to all licenses, domestic US and foreign. There are other clauses which are more peculiarly suited to foreign agreements.

Geographic divisions may be more readily applied and more essential to abide by the somewhat different treatment of intellectual property in each country. The manufacture and use of the patent, trade secret, and know-how based product may be limited to the United States, but sales may be permitted worldwide.

Payment must be defined as to the currency in which it will be made and who pays any taxes or transfer charges.

Government approval for transfer of royalties and repatriation of capital must be provided for between the parties. Some countries subsidize their own companies who can then sell below market price. When dealing with a licensee who has that subsidy available, the licensor will insist on a clause that grants the same subsidy as the licensee or denies it to the licensee to maintain a level playing field in world markets.

Provision must also be made for the particular currency in which payment is made. Indexing, such as to the price of gold, may also be included. Language must also be included to condition the effective date of the license on the date when all government rules and regulations of all involved countries have been met, when the US government approves the export of the technology, the license is registered with the proper authorities, and the foreign government approves the license.

Generally a force majeure clause common in European countries is employed to excuse defaults when external events, war, insurrection, strikes, shortages, lightning, flood, prevent performance. A clause designating the official language of the original license document and of any counterpart originals and the controlling language in case of dispute is

often included. Finally, a clause which specifies the country whose laws are to apply in resolving any dispute is added to remove any possible source of confusion in interpreting the license.

A license agreement is a special form of contract in which each party promises to do something in consideration of the promises of the other party. It is based on a business understanding between the parties and common sense applied to attain the business goals. But it is more difficult and complex than normal contracts because its subject matter, intellectual property, patents, trademarks, copyrights, trade secrets, and know-how, are very unique forms of property. The properties require special action to create and maintain them. And great care is necessary in licensing such properties to maximize their returns and prevent their loss.

### INFRINGEMENT AND LITIGATION OF INTELLECTUAL PROPERTY

**Infringement.** The very word generates reactions of fear, dread, annoyance, and confusion, no matter whether you are the one making the charge or you are the accused infringer. The attempt here is to explain simply what constitutes infringement of intellectual property rights and the typical course of infringement litigation.

All infringement is based on the violation of some right. For patents, that is the exclusive right to make, use, sell, offer for sale, or import the patented invention. Infringement of a trademark occurs when an unauthorized party uses a similar mark in commerce for similar goods or services, so as to cause a likelihood of confusion. A copyright is infringed when the owner's exclusive right to reproduce, prepare derivative works, distribute, perform, or display the copyrighted work is done without authorization. A trade secret right is violated when a commercial or technical business secret is stolen by theft or violation of a confidential relationship.

#### General Conduct of Litigation and Patent Aspects

Understanding patent infringement begins with precisely identifying the patented invention. The drawings and the description of the drawings in a patent do not define the patented invention. Rather, it is the claims, the numbered paragraphs at the end of the patent that define the scope of protection of the patent. Claims delineate the zone of exclusivity reserved to the patent owner which, if entered by any other unauthorized person, constitutes infringement of the patent. To determine whether a product or process infringes a patent, one must read those claims element by element on the accused device. Every element in the claim as characterized in the claim language must be present in the accused device for there to be infringement. Sometimes a court finds infringement even though the claim is not literally infringed if the infringing device has the same purpose, functions in the same way, and produces the same results. This is known as the doctrine of equivalents.

Patent infringement takes three different forms. Direct infringement occurs when the infringer makes, uses, sells, offers for sale, or imports a patented device. Contributory infringement occurs when a party sells a component of a patented machine, manufacture, combination or composition, or sells a material or apparatus for use in practicing a patented process which constitutes a material part of the inven-

tion. The contributory infringer must know that the thing he sells is especially made or especially adapted for use in an infringement of the patent and not a staple article or commodity of commerce suitable for substantial noninfringing use. Inducing infringement occurs simply when one party induces another to infringe, such as by supplying instructions or materials for producing the patented invention. It is also infringement to import into or sell in the United States a product made elsewhere by a process patented in the United States during the life of that process patent.

A patent owner has the right to sue an infringer in federal court. Patent suits cannot be brought in state courts.

An accused infringer can also bring suit. If a patent owner is threatening suit, causing customers to desert the accused infringer, scaring suppliers, driving away investors, the accused infringer can bring a Declaratory Judgment suit first, asking the court to declare the patent invalid, not infringed, unenforceable or all three. Any time a patent owner brandishes the patent there is the risk that the accused infringer will bring suit first and in whatever location chosen, provided jurisdiction and venue requirements are met. That is why a letter charging infringement must be carefully drawn and the patentee must carefully weigh its conduct. For if the words or deeds of the patent owner raise a reasonable apprehension of suit in the accused infringer the infringer has the right to file a Declaratory Judgment action first to attempt to put an end to the harassment. The law seeks to prevent a patent owner from profiting from the threat without ever putting the patent to the test.

In a patent infringement suit a patent and each and every one of its patent claims is presumed valid. That means the infringer has the burden of introducing sufficient evidence to overcome the initial presumption and prove invalidity. And each claim stands on its own. That one claim is held invalid does not necessarily invalidate any other claim of the patent. If the accused infringer is found to infringe even a single claim, the patent is infringed.

An alleged infringer can defend on a number of grounds: the patent is invalid; not infringed; unenforceable because it was misused to control unprotected goods, for example; the invention was not novel; was obvious; was insufficiently disclosed, that is, the patent did not explain how to make and use the invention sufficiently for one skilled in the art to understand; and/or that the inventor did not disclose the best mode of carrying out the invention.

There are powerful remedies available against infringers. An injunction can be fashioned by the court to stop the infringer from making, using, and selling the patented device to preserve the patent owner's exclusive right to practice the invention. Damages can be and usually are awarded. Polaroid was awarded nearly one billion dollars in damages from Kodak after trial. The damages are to be adequate to compensate the owner for the infringement. They are at least equivalent to a reasonable royalty. Interest and costs can be added and the damages can be increased up to three times actual damages, for example, if the infringement is willful. Embarking on a course of infringement without an opinion of patent counsel that the patent is not infringed or is invalid, unenforceable or defective in some way can be grounds for charges of willful infringement. Although an infringer's profits generally cannot be recovered, they can be considered damages if those profits are from sales that the patent owner would have made but for the infringement. Attorney's fees,

which in many cases are greater than the damages, are awarded in exceptional cases, for example, willful infringement; failure to make proper, timely, discovery; frivolous claims; general obstreperous behavior. Damages can be recovered only for a period of six years before the complaint or counterclaim for infringement are filed. If the patented product is not marked with the notice "patent" or "pat." and the patent number, no damages can be recovered unless the infringer has actual notice that he is infringing, such as by letter or by filing suit.

Between the time a suit is instituted by filing the complaint in federal court and the time the trial actually begins, there is a period during which discovery is made and various motions are filed. Both of these activities are expensive, time-consuming and vexatious for the litigants and hectic for the attorneys. This period generally begins after the defendant has filed and served its answer to the complaint.

However, a motion to dismiss can be filed before the filing of the answer in an attempt to end the case before it begins. Grounds for such a motion include lack of jurisdiction of the court over the subject matter or over the defendant; improper venue (wrong locale of court); insufficient process or service of process (improper service of the complaint on the defendant for example); failure to state a proper legal claim; or failure to join a necessary party, for example, the patent owner.

If the case survives this first assault, an answer is normally filed, and a schedule for discovery is set. During this time each party serves on the other party written questions called interrogatories which must be answered in a set time. Each party also serves on the other party requests for admissions to save the time and cost of proving facts which are undisputed or plainly obvious. If a party denies those admissions and it later appears that there was no real question of those facts, the costs and attorney's fees required to prove those facts are assessed against the party who refused to make those admissions.

Each party takes the deposition of the other and of third party witnesses and also subpoenas documents of third parties. Depositions are proceedings whereby a sworn witness is questioned by one side's attorney, then cross-examined by the other's, and all the questions and answers are recorded by a certified court reporter. This normally takes place at one of the attorneys' offices, at the premises of one of the parties, or anywhere else at the agreement of the parties. The recorded testimony is later submitted to the witness for verification and signature and can be used in court at trial. Each party can also request the other to produce all relevant documents, which includes everything from notes on napkins to electronic media. In all of these discovery procedures, there is wide latitude as to the subject matter. Unlike court proceedings where inquiries are generally confined to eliciting evidence relevant and material to the issues being tried, there is no such limitation during discovery. One can pursue any discovery paths which *may lead* to relevant evidence. This can be annoying to litigants but it is the procedure and should be understood.

During this pretrial period, the court generally suggests or even urges the parties to settle. The court also requires identification of proposed witnesses and of issues to be explored during discovery and imposes a schedule for discovery that must be adhered to by the parties. Additional motions are brought as new issues arise or as new evidence on old issues is discovered. At some point one or both parties may

bring a Motion for Summary Judgment in an attempt to win the case without having to go to trial. This motion is submitted based wholly on deposition transcripts, answers to interrogatories, admissions, documents, and affidavits but no live testimony. The moving party wins only if it shows that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law. The opposing party tries to show, to the contrary, that there are material facts in controversy. One by-product of such a motion is that both parties pretty much reveal the entire theory of their case and all of their proofs which otherwise might not have been disclosed until trial.

Often one of the parties feels a need for instant redress and cannot wait until after discovery and trial. For example, a patentee may want the accused infringer stopped now before trial because the infringer's shoddy knock-offs are stealing the patentee's limited market for the patented goods and souring the buying public's taste for the product because of the poor quality of the knock-offs. Or the accused infringer may seek such preliminary relief because the patentee's charges of infringement have scared off customers, suppliers, potential strategic partners, or financial investors.

In that case the aggrieved party can move for a preliminary injunction. In that proceeding after no or limited discovery, on the basis of documentary evidence, transcripts of deposition testimony, and a hearing in the nature of a mini-trial in court before a judge or magistrate, the moving party presents its case and the other party opposes.

To prevail on a motion for preliminary injunction, the moving party must prove the likelihood of winning a full trial on the merits and irreparable harm if the injunction is not granted immediately, that the other party will not be unduly harmed, and the public will not be prejudiced.

Any decision to move for a preliminary injunction must be carefully weighed. First, it requires a complete disclosure of the case to show a strong likelihood of ultimate success after trial so that essentially you have to prove your entire case now. Second, in addition, you must prove irreparable harm, no unfair prejudice to the opposing party, and careful preservation of the public's stake in the affair. Third, it must all be done in great haste, sometimes before all the facts and theories are fully obtained and considered. Fourth, if the motion is not granted, the opposing party will be elated, buoyed up, feeling that the case is won when all that really happened was that the judge saw no need for instant redress. The judge might have felt that the movant had shown a likelihood of success on the merits but was unconvinced that irreparable harm would result if an injunction was not immediately issued. But the opposer, not always seeing it that way, believes it is vindicating, validates the opposing position, and it may inspire the opposer to fight all the harder. On the other hand, if the moving party wins, it shows that the court is already convinced of the soundness of its position and is predicting ultimate victory. That can end the case quickly.

#### Trademark Aspects of Litigation

A trademark owner can exclusively use a trademark on his goods in commerce. If the trademark is registered in the US Patent and Trademark Office, then other additional rights inhere. A registration extends the owner's exclusive right throughout the United States even to locales where the mark



has not yet been used. And it establishes jurisdiction over trademark infringement suits in federal court.

Federal registration also allows the registrant to give notice that the mark is registered with the words "Registered in US Patent and Trademark Office" or "Reg. US Pat. and Tm. Off." or ®. However, in an infringement suit, if there has been no such notice displayed with the mark, then no profits or damages can be recovered unless the infringer had actual notice of the registration.

Certain exclusive rights are bestowed by federal registration. Any person who uses any reproduction, counterfeit, copy, or colorable imitation of a registered mark in connection with the sale, offering for sale, distribution, or advertising of any goods or services which are likely to cause confusion, to cause mistake, or to deceive is liable as an infringer. Also liable as an infringer is anyone who reproduces, counterfeits, copies, or colorably imitates a registered mark, applies it to labels, signs, prints, packages, wrappers, receptacles, or advertisements intended to be used in commerce on or in connection with the sale, offering for sale, distribution, or advertising of goods or services, if that is likely to cause confusion, mistake, or deception.

An infringer who is engaged solely in the business of printing the mark for others is only liable to an injunction. Similarly, where an infringement occurs by virtue of appearing as paid advertising matter in a newspaper, magazine, or electronic medium, the publisher is only liable to an injunction. Even then an injunction may not issue if stopping further publication of the infringing mark delays the time of publication or programming beyond its normal time.

An infringer not in those limited categories previously listed is subject to an injunction against future infringing activities, the infringer's profits, damages sustained by the trademark owner, and the cost of the action. The court can also award treble damages and attorney's fees. Further, the court may order that all labels, signs, prints, packages, wrappers, receptacles, and advertisements bearing the mark in the possession of the infringer and all plates, molds, matrices and other devices for making them be delivered up and destroyed without any reimbursement to the owner.

When a registered mark is involved in litigation, the court may determine the right of that mark to a registration or cancel it in whole or in part, restore a cancelled mark, or take any other action needed to rectify the registration and may order the US Patent and Trademark Office to carry out the action determined by the court.

The remedies for counterfeit marks are much more stringent. In the case of counterfeit marks, a court upon proper showing may grant an *ex parte* order to seize the counterfeit goods without previously informing the alleged counterfeiter. Such an order can result in the sealing of a warehouse before notice that a proceeding has been filed against the owner. To obtain such extraordinary measures the moving party must show that, if notice were given, the counterfeit goods would be destroyed, moved, hidden or otherwise made inaccessible. The court takes custody of the goods and the moving party must provide adequate security, for example, a bond sufficient to cover any damages if the seizure is later adjudged to have been wrongful. A party who had goods wrongfully seized may recover damages for lost profits, cost of materials, loss of goodwill, punitive damages, and attorney's fees.

The discovery procedures, including depositions, interrogatories, requests for production of documents and requests for admission, are the same procedurally as in patent cases. The same procedural motions are available for trademarks as for patents: motions to dismiss, motions for preliminary injunctions, motions for summary judgment, and Declaratory Judgment actions. But, the evidence sought and the proofs required are different. Here the trademark owner will seek to prove infringement by showing likelihood of confusion, copying of the mark by the infringer, and the owner's prior use, widespread use and substantial advertising, and promotion whereas the alleged infringer will seek to show no likelihood of confusion, that the mark has been misused in violation of the antitrust laws, or was obtained wrongfully or through fraud, or that the mark is descriptive or generic. Considered in determining likelihood of confusion are similarity of the appearance, sound, impression, or meaning of the marks, similarity of the goods, similarity of the channels of trade in which the goods move, and similarity of the purchasers.

#### Copyright Aspects of Litigation

A copyright protects original works of authorship fixed in a tangible medium of expression, for example, print, film, phonograph records, electronic media. The protection extends to "original" works not just "novel" works, that is, as long as the work is original with the author, that author has copyright protection. Thus theoretically if two people using the same camera, settings, and film take the same picture of the Washington Monument and produce identical photographs, they each own the copyright on their photograph. Practically, if such an event should occur, one of the photographers will claim the other copied the work. To prove this, the photographer must prove taking the photograph first and that the other photographer had access to it. This coupled with the similarity of the photographs will prove a *prima facie* case of copyright infringement which the other party can defend by showing no access and independent creation. Note also that copyright protects the form of the expression, not the idea or concept behind it. The copyright owner cannot stop other photographers from taking the same picture of the Washington Monument. Lotus cannot stop others from making spreadsheets only from making one similar in look and feel to Lotus' 1-2-3.

In addition to the usual definitions of fraud, invalidity, noninfringement, noncopyrightable subject matter and misuse theories, defense of fair use is also available under copyright law. Fair use arises when the work was copied for purposes of criticism, comment, news, teaching, scholarship, or research. To determine whether a fair use exemption applies, courts examine the purpose and character of the use (commercial or nonprofit); the nature of the work; the amount of the work copied; and the effect of the copying on the market for the work.

Copyrightable works take many forms: literary works; musical works; dramatic works; pantomime and choreographic works; pictorial, graphic and sculptural works; motion pictures, and other audiovisual works; sound recordings and architectural works. Copyright also covers compilations and derivative works but only the new authorship contribution not the underlying preexisting material.

The copyright owner has certain exclusive rights which if violated constitute infringement: to reproduce the work; to prepare derivative works based on the copyrighted work; to distribute copies by sale, rental, lease, or lending; to perform the works publicly; and to display the work publicly. In addition the authors of visual art works have the rights of attribution and integrity. The authors must be claimed as the authors of their work and can prevent the use of their names with any work not authored by them or any work authored by them but substantially changed. The authors can prevent any intentional or grossly negligent destruction of their work and can prevent any intentional distortion, mutilation or modification of the work.

While copyright notice is no longer required since the United States joined the Berne Convention in March 1989 and lack of notice no longer forfeits copyright protection, it is still prudent to apply the notice to prevent the defense of innocent infringement in mitigation of actual or statutory damages.

Although copyright registration is not mandatory, no action for copyright infringement of a US work can be brought unless a registration is obtained or has been or will be applied for. In addition, no statutory damages or attorney's fees can be recovered for infringing an unpublished work commenced before the effective date of its registration or for infringement of a published work commenced after first publication and before the effective date of its registration unless registration is subsequently made within three months of the publication of the work.

Copyright infringement actions, like patent infringement actions, can be brought only in federal court. At any time during an action for copyright infringement, the court may order the impounding of all copies made or used in violation of the copyright and of all plates, molds, matrices, masters, tape, film negatives, or other articles from which copies can be made. As a part of a final judgment, the court can further order the destruction or other disposal of those items.

A copyright infringer is liable for actual damages and profits or, at the election of the copyright owner, statutory damages. Thus the copyright owner can recover the damages suffered and any profits of the infringer attributable to the infringement. The copyright owner need only prove the infringer's gross revenue and the infringer must prove its deductible expenses and profits attributable to other factors.

Alternatively, the copyright owner can elect to recover statutory damages. If it can be shown that the infringement was willful, the upper limit of recovery can be extended. The court can award costs and attorney's fees.

Unlike patent and trademark violations, copyright law provides that any person who willfully violates a copyright for commerce or financial gain is criminally liable, and infringing copies and the means for making them can be forfeited or destroyed. Further, a fine can be imposed for fraudulent removal or alteration of a copyright notice, fraudulent giving of copyright notice, or false representation of a material fact in an application for copyright registration.

The discovery procedures, including depositions, interrogatories, requests for production of documents and requests for admission, are the same procedurally as in patent cases. The same procedures are available for copyright as for patents and trademarks: motions to dismiss, motions for preliminary

injunctions, motions for summary judgment, and Declaratory Judgment actions.

Litigation progresses similarly in cases involving trade secrets and unfair competition, trade dress, false advertising, and similar issues except that there is no government "deed" to the property as there is with patents, trademarks, and copyrights the existence of the "property" and its ownership must be established by external evidence.

JOSEPH S. IANDIORIO