28
Intellectual Property

28. 1 Introduction

This chapter offers an introduction to the law of intellectual property, which comprises patents, trademarks, and copyrights. The subject is almost completely statutory, and the court decisions in this field are thus subject to frequent legislative modification. No design professional should attempt self-help in these areas; however, a basic knowledge sufficient to alert one to when professional assistance is needed is highly desirable.

Because both the law and technology are evolving rapidly, one would be well served to consult an attorney with particular expertise should an intellectual property problem arise. For example, when the 7th Edition of this text was being prepared, the life of a patent was 17 years from date of issue, but by the time the manuscript went through editing and proofreading, such had changed to 20 years from date of application. (This usually is the about the same date due to the time needed to process the application, but the point is made.)

28.2 Definitions and Purposes

A *patent* is a right granted by the federal government to a person or persons entitling them, for a limited period of time, to exclude everyone else from making, selling, and using the process or article that they have patented.

Article I, Section 8, Clause 8 of the Constitution of the United States recognizes the need for stimulation and protection of inventions as a matter of public interest. .[28-1] Accordingly, the patent system of the United States was developed.

The patent system was inaugurated in 1790. It is administered by the Patent Office and Trademark Office (hereinafter Patent Office), which is in the charge of a commissioner of patents and trademarks (hereinafter commissioner of patents) under the secretary of commerce. Protection of inventions under the patent law is effective throughout the United States and its territories.

A patent is essentially a contract between an inventor and the government. Courts and legislatures will treat patents as they do other contracts. The inventor is obliged to describe his invention fully through the medium of the issued patent; the government undertakes to protect the right created by the patent. Of course, a patent on a particular article or process will be granted to the first inventor only.

The life of a patent in the US is 20 years from date of application (previous to 1995, this was 17 years from date of issue,) except for design patents[28-2] (such as for a piece of jewelry), which is 14 years. The specified term of any patent can be extended only by special act of Congress. The government affords the inventor the right to exclusive use of the patented device for this period. However, this privilege is conditioned upon the complete disclosure of all details of the invention so that, after the expiration of the patent, anyone with the necessary know-how and finances will be in a position to make, sell, and use the device. In this sense, patent means “opened,” or “disclosed.”

Issuance of a patent does not necessarily mean that the patentee has a right to manufacture the article involved. Additional governmental or other authorization may also be needed before he can do so. For example, someone else may hold a patent on certain important features incorporated in and dominating the invention. The patent itself merely grants to the holder the privilege of temporarily preventing others from using the process or making the article in question.

Placing a patent label and number on an article is a way of serving notice that the maker relies upon his rights under the patent and presumably will prosecute anyone who violates them. The courts will not allow a patentee who has failed to affix such label and number any damages for any period prior to formal notice to another party that the latter is infringing the patent. The words “patent applied for” have no particular efficacy at law and merely tend to deter another person from belatedly trying to get a patent on the same idea, since the first party’s application would obviously be ahead of his. The second party might also be deterred by the expense of tooling up for production that may never materialize because the article to be produced is the subject of another and prior patent application. Similarly, “patent pending” means relatively little—only that an application for a patent is being prepared, has actually been submitted to the Patent Office, or is under consideration by the Patent Office. “Application pending” means almost nothing, although the so-called “inventor” may try to use this label as a means of keeping his invention for himself, believing that the use of the quoted phrase will inhibit manufacture of the article by others. “Application pending” labels might prove helpful in this way: Would-be manufacturers who may wish to become licensees might approach the inventor with some satisfactory arrangement for production mutually beneficial to the inventor (ultimate patentee) and the licensee.

A patent will accomplish nothing unless it is put to use. That use is the purpose of the system, and profit for the inventor is more or less incidental. The patent system is supposed to make inventions available to the public sooner than they might be if the inventors and manufacturers endeavored to keep all their new developments and products strictly secret for many years. By offering an opportunity for inventors to secure protection, the patent system serves to encourage investment in research and to foster competition in invention, each imaginative person trying to outdo others in the creation of better products and processes.

Infringement of a patent is the premature use of the protected invention by another person without the permission of the inventor. The infringement may be unintentional or deliberate. It is necessary for the holder of the rights to take action in order to stop the infringer’s activities; mere possession of the patent alone will not do the job. If a product or process does infringe, or seems to infringe, upon a patent, the dispute between the parties is not for the Patent Office to resolve. These disputes are within the jurisdiction of the federal courts.

Prior to receipt of formal patent application, the Patent Office will not try to determine whether an alleged invention will infringe upon an

existing patent. Neither will the Patent Office give advance counsel to the applicants about whether articles or processes are worth patenting.

28.3 Patent Records

The Patent Office, in order to promote the progress of the arts and sciences, maintains an excellent library of data on issued patents for the use of all who wish to learn what has already been developed. The information about patents is arranged in accordance with a predetermined classification, and it includes material about foreign as well as domestic patents. Persons who think they have developed a new process or product can ascertain whether or not someone else had preceded them. Such checking frequently avoids the waste of time and money entailed in an attempt to secure a patent in connection with an article or process that, it develops, is not original.

28.4 Patentability

By no means is every new process or article patentable. Some of the fundamental principles regarding patentability[28-3] are listed here.

- The new development must have the element of invention. It is not to be merely a routine improvement of some article or process. That is to say, it must be an improvement that one might reasonably expect would be made in the normal course of events by someone who is "skilled in the art."[28-4] An improvement, to be patentable, must reveal the exercise of unusual ingenuity—it should represent an advance that would not ordinarily be expected. The patent laws[28-5] state that an invention is not patentable "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."
- The invention must not be frivolous, and it must not appear that it would have an injurious effect upon the morals and health of people.
- The invention must be useful. This requirement may, however, be met by something (e.g., a design) that merely caters to a whim of the public.
- Broadly speaking, a person is not entitled to a patent on someone else's invention.[28-6] A patent may cover such subject matter as the following:
- A process or way of making something—often referred to as an art (e.g., a new method of manufacturing sulfuric acid);
- An article of manufacture for sale or other use (e.g., a new type of outboard motor);
- A piece of apparatus (e.g., a machine for extruding aluminum tubes);
- A composition of matter (e.g., a new plastic compound);
- An agricultural development (e.g., a new variety of plant);
- A new design whose value comes from its appearance (e.g., a new pattern for table silverware).

28.5 Application for a Patent

The preparation of an application for a patent is an exacting task. An engineer who plans to apply should consider securing the services of an experienced agent or expert who is registered at the Patent Office. Otherwise, the applicant may make errors of commission or omission that will prove very costly in the future, perhaps even to the extent of defeating the application.

One of the first steps to be taken is a search of the files maintained at the Patent Office in Washington to see whether the idea or principle of the device involved has previously been patented. The search may also reveal that someone has come so close to the same invention that prospects of the newcomer being able to secure a patent are not bright. Of course, the inventor (or some other person, on his behalf) may make this search personally, but it is preferable for him to engage an experienced investigator if the inventor is not familiar with such searching.

A patent will be granted only when there is an application properly filed with the Patent Office. The application must be complete in every respect and accompanied by payment of fee. The application must contain complete disclosure of the invention and satisfy the requirement that the article, composition of matter, or process be new and useful. The mere submission of an idea or suggestion for an invention is insufficient.

The application for a patent is to include a petition, addressed to the Commissioner of Patents, requesting the grant of a patent, giving a designation to the device, and stating the inventor's name and address. The signed application must contain a statement to the effect that, so far as the applicant knows, he is truly the originator of the device he seeks to patent.[28-7] The petition is also supposed to include specifications (description), drawings (when practicable), and claims regarding exactly what the invention is intended to accomplish and what the patent is to cover. Proper preparation and wording of the foregoing material are extremely important: the information given must be both comprehensive and specific. The application for a patent must be legibly printed or written in ink, and it must be in English.

Applications—each one of which can cover no more than one invention—are given numbers in the sequence in which they are received by the Patent Office. They are examined in the order of filing and are classified according to the subject matter of the invention. They are kept confidential unless the applicant gives the Patent Office written authority to disclose certain information to interested persons. If the subject of the invention is a matter that should be kept secret in the interest of national defense, the commissioner of patents, on his own initiative, may label the application "secret" and withhold any revelation whatever.

The inventor is to make the application personally. If two persons worked together in the development of the process or article, they must jointly apply for a patent. When there are known to be joint inventors, neither one is allowed to patent the invention exclusively. However, under one of the practice rules of the Patent Office, if one of the joint inventors refuses to sign the application papers or cannot be reached after diligent effort, the other inventor may make the application on behalf of both.

One who merely supplies money to enable the inventor to proceed with his endeavor cannot qualify as a joint inventor. Working independently and without knowledge of the other's efforts, developers of separate improvements in the same article or machine cannot jointly obtain a patent.

If an inventor dies before filing, his executor or administrator may perfect an application for a patent, and the patent will be granted if the application meets the usual requirements. If an inventor dies after filing his application, the patent may issue to the executor or administrator, if such fiduciary files the proper papers evidencing his or her appointment as the representative of the decedent's estate.

Should a certain patent application conflict with someone else's somewhat similar application pending in the Patent Office, such office will conduct an *interference proceeding*. An appointed board of examiners will determine from evidence submitted who is the real inventor and thus who is entitled to the patent. In such a situation, one can readily see the importance of keeping adequate records.

28.6 Specifications

In connection with a patent application, the term "specifications" denotes a written description of the invention, often called a *statement of invention*.[28-8] The specifications should include illustrative drawings when these are needed for clarification. The description should cover how the device is made and how it is to be used. The data must be clear and complete, yet concise. The invention should be described in such detail that anyone skilled in the art can understand what is being said and, by following the specifications, put together the device in question. Otherwise, a patent will not be granted.

The applicant should exercise extreme care to ensure that the description of the invention is correct. He should state the suggested method for constructing the device but should be careful not to limit the ways in which it can be made, or the process accomplished. In this connection, the applicant might use alternatives. For example, he could say that a certain portion of his machine may be a casting or may be fabricated by means of welding pieces of steel together. However, the listing of alternatives can, in certain cases, prove confusing or even detrimental.

Making the drawings for a patent application is almost an art in itself. These drawings should be clear, neat, and so prepared as to bring out the special points that the inventor intends to emphasize. For example, the drawings depicting a mechanical device should generally show a label or number for each pertinent piece or element, so that the specifications can, through cross-reference, clearly describe each item and its function.

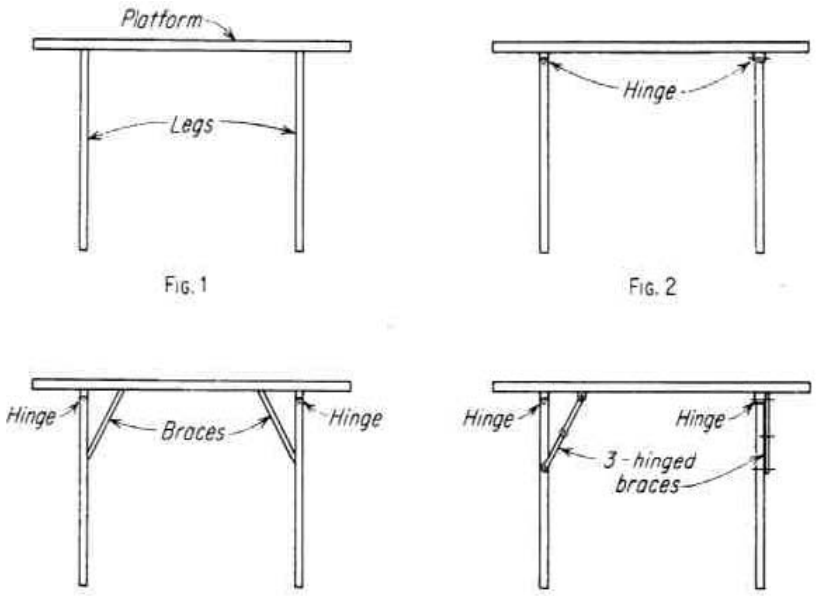

FIGURE 28–1 | Drawing to accompany claims for a patent.

The requirements regarding drawings are very specific and must be complied in every detail. Models, in lieu of drawings, will not be accepted unless the substitution has been requested by the Patent Office.

The following suggested arrangement of items is one that may be observed in framing the application:[28-9]

1 Preamble, stating the name and residence of the applicant and the title or designation given to the invention
2 Abstract, or general statement of the nature of the invention
3 Purposes
4 Brief description of the several views shown on the drawings (if the invention lends itself to such illustration)
5 Details of the invention
6 Claim or claims
7 Petition
8 Signature of applicant

28.7 Claims

The term *claims* as used in connection with an application for letters patent denotes the statements describing what the invention is expected to accomplish. The claims must clearly convey the scope and character of the invention. Usually, the first portion of the claim material constitutes a general outline of what the patent is to cover. Subsequent portions will be more specific and will relate to details of the invention. The claims must be worded very carefully and accurately. Preparation of these claims is such an important matter that it should be handled by an expert, preferably one who is a specialist in the particular field to which the subject matter of the invention relates (e.g., chemistry or mechanical engineering).

The following example illustrates a typical set of claims. All four items are shown as they might appear in the application for one patent on a device comprising a card table. The drawings accompanying the claims are grouped in Figure 28–1 and are numbered so as to accord with the corresponding claims.

Claim 1 A table comprising a platform, at least one support member, and mounting means for mounting said support member to said platform.
Claim 2 In the article of claim 1, said mounting means comprises a hinge and locking means to maintain said support member in a desired position in relation to said platform.
Claim 3 In the article of claim 2, said locking means comprises a brace member having one end engaging said support member and an opposite end engaging said platform.
Claim 4 In the article of claim 3, said brace member comprises a first portion engaging said support member, a second portion engaging said

platform, and said first second portions movably connected to each other.

In claim 1 (an independent claim), the claimed elements of the structure appear after the word “comprising,” which elements are (a) a platform, (b) a support member, and (c) means for mounting the support member to the platform. An unauthorized person building a table with one leg or a plurality of legs might impinge upon this claim.

Claim 2, known as a *dependent claim*, contains the three elements of claim 1 with the added limitation that the mounting means is a hinge. If the first inventor did not have claim 2, another inventor might get a patent on a table with a hinge; in that case, the first inventor could not use a hinge without permission from the second inventor, and the second inventor could not make a certain type of table without permission of the first inventor. It is desirable, of course, for the first inventor to provide for as many modifications and improvements as possible to protect his position.

Claim 3 includes (by implication) all the elements of claim 2, but the locking means is identified as a brace. It is conceivable that another person might choose to hold the support member (leg) by means of a wing nut on the axis of the hinge—and this arrangement would not constitute a brace. However, in the process he would run afoul of claim 2, which specifies “locking means.” Claim 3 is said to be narrower, or limited, as compared to claim 2.

Claim 4 includes all the elements of claim 3 and is even narrower than claim 3 because it calls for the brace to have two-part member portions. This particular claim (claim 4) could be avoided by using a one-part brace that can be hinged at one end and is slidable at the other end, but any such expedient would be unable to contend with claim 3. A three-part brace member would similarly encounter difficulty because the claim would “read on” the suggested three-part brace, which obviously has at least two parts. The added part (i.e., added to the two) does not successfully circumvent claim 4.

From the foregoing it will be obvious that, in drafting claims, a great deal of thought must be given not only to the selection and arrangement of the words that will make up the claims, but also to the various ways someone else could avoid the claims.[28-10]

In general, the more elements the claim has, the more specific it becomes. One should try to make the claims broad and simple. The Patent Office will decide whether or not the claims are too broad, but it will not try to determine whether they are too narrow. If the claims are unduly narrow, the scope of the patent may be so restricted that competitors can easily come up with a slightly different device that will not infringe.

If the invention is a method of doing something, the claims should state in detail the various steps to be taken to accomplish the desired objective. Someone else who can achieve the same result in fewer steps or in different ones can assert that her invention is a new or different method and that it therefore does not infringe upon the patent of the first inventor.

One cannot add a new material to a pending patent application and at the same time preserve the original filing date. Claims can be expanded during the course of their presentation to the Patent Office if the original specifications mention the point involved in the attempted expansion. Of course, a new, enlarged application can be filed to replace the old, but the substituted one will necessarily bear a later date than that of the original.

If a patent is found after issue to have been based upon claims one or more of which are invalid, it may be possible for the patentee to disavow the invalid claim or claims and allow the remaining valid claims to retain patent protection.

28.8 Validity

Claims in an application for a patent are invalid if they do not meet the requirements for patentability.

It is entirely possible that an applicant has been unaware of prior publication or prior art concerning the substance of his invention. Nevertheless, proof of such prior activity will cause his application to be rejected or will invalidate the patent after it has been granted. This assumes that the unlikely occurs and that there has been some oversight by, or lack of information in the hands of, the Patent Office, causing a patent to issue when it should not have.

The patent must be taken out in the name of the real inventor. If the invention is the joint product of two or more persons, proof of this circumstance will invalidate a patent issued in the name of one of the parties alone. There may be disagreement about whether an invention is sole or joint. If one inventor conceives the idea for the device and then instructs in detail other persons in making a drawing or working model or in conducting a successful experiment, the resulting invention is really the product of the first individual alone. On the other hand, if the first person had merely a general conception of the prospective invention but had to depend upon the unusual skill and imagination of someone else to develop the article or process, this will probably be treated as a joint invention—the product of the creative efforts of both parties. If one person develops a patentable device but an assistant proposes an ingenious additional feature to add to the original scheme, the two inventions should be separately patentable. The total product is not really a joint invention because the item attributed to the first inventor is autonomous and completely separable from that produced by the second inventor.

The first individual may have to prove the priority of his invention to overcome interference[28-11] from the other persons interested in patenting virtually the same product, and he must be able to defend his own assertion that others have not (within a certain time period) used or “published” the invention on which he seeks a patent. Any pertinent publication or use by others more than one year before an inventor submits his application for a patent will void the latter’s application.

28.9 Date of Conception of Idea

If a person develops a scheme that she thinks is potentially patentable and she makes a dated record of the new proposition, such action alone will probably be insufficient to establish the idea date in connection with her subsequent petition for a patent. The inventor should do something beyond simply marking her records. She might, for instance, write to an outsider, giving the general outline of her idea—and do so promptly upon conceiving it. The date of the conception in the eyes of the law for the purposes of securing a patent is likely to be the date of the first disclosure of the idea to someone who is competent to understand it and later to verify the fact of the disclosure. This observer should be someone other than a person working with the would-be applicant on the invention. If such observer makes a written record of the disclosure on behalf of the inventor, and if the former signs and dates this record forthwith, the document may well be a valuable one for the inventor to have available to her.

It is apparent that, when one is developing what she hopes will be a patentable invention, she should try to establish proof of the date of

conception of the idea so that she will have an airtight case on the point if and when needed. Letters, sketches, and tentative descriptions that have been dated, witnessed, and signed—preferably by more than one competent observer—are very useful instruments in this connection. The observers should have some understanding of the invention in case they are asked to appear in support of the inventor's claims.

28.10 Reduction to Practice

It is important to prove that one's invention really works in practice, not merely under ideal laboratory conditions. An inventor should have at least one witness to the fact that the invention indeed does what it is supposed to do. This testing in operation is called *reduction to practice*. Assume that *A* invents a garage door that will automatically open and roll up overhead when a car approaches it. He should build a sample of such door, install it in his garage or that of a friend, and demonstrate it to a competent observer.

Naturally, an inventor will want to maintain secrecy so that no one except his trusted friend will learn of his invention before the patent application can be submitted. This security problem is one for the inventor to work out with the aid of the friend to whom he discloses the invention.

If the final perfection of an article or process to be patented will cost so much that the inventor cannot finance the necessary work of development, he may nonetheless file his application for a patent to protect his rights. This course of action is known as *constructive reduction to practice*—which means that the device described in the petition does not yet exist. The inventor then may make arrangements with someone to finance the perfection of the invention in return for a share of the benefits, on whatever terms may be mutually agreeable.

28.11 Diligence

After conceiving her idea, the inventor must be diligent in implementing it. Exactly what will be regarded as diligence in a particular set of circumstances is hard to say. However, if nothing is done to perfect her invention within a few months of the conception of the idea, she probably will be deemed to have been dilatory. Some inventions may require years for their perfection; others may lend themselves to complete development within a few months. The reasonableness of the time period between conception of the idea and perfection of the invention to application for a patent thereon will be judged in accordance with the factual circumstances in a given case.

Let us suppose that *A* thought up the idea for an invention in January 1998, and that *B* who knew nothing about *A* or his activities, came up with the same thoughts independently in June 1998. Assume also that *A* did little to perfect his idea, whereas *B* developed the invention promptly and applied for a patent in October 1998. Shortly thereafter, *A* heard about *B*'s application and tried to secure the patent for himself by applying in December 1998, claiming that he had the idea first. It is probable that *B* would be granted the patent because *A* had been comparatively dilatory. In one early case involving a patent in a bookbinder's press,[28-12] the court made the diligence point in these words:

> It is obvious from the foregoing that the man who first reduces an invention to practice is prima facie the first and true inventor, but that a man who first conceives, and, in a mental sense, first invents, a machine, art, or composition of matter, may date his patentable invention back to the time of its conception, if he connects the conception with its reduction to practice by reasonable diligence on his part, so that they are substantially one continuous act. The burden is on the second reducer to practice to show the prior conception, and to establish the connection between that conception and his reduction to practice by proof of due diligence.

Although it is advisable to proceed as quickly as possible to develop an invention, it is equally evident that the inventor's work should not be so hasty and incomplete that his claims will be disallowed because of errors, imperfections, or failure of his invention to function as advertised.

It is well for an inventor not only to have a record of the disclosure of his invention idea to at least one competent person (and preferably two or more) but also, from time to time, to have outsiders witness and verify his procedures and his progress in developing the invention. Involving several individuals will serve to reduce the possibility that, for one reason or another, when the need for testimony arises, no one will be available. The witnesses ought also to observe the functioning of any model of the invention, its performance under tests, and even the preparation of descriptive matter and drawings.

28.12 Keeping Notes on the Invention

It is very important to maintain a running record of activities once work on the invention has commenced. This record should be kept in a bound notebook so that others would find it difficult to claim that the inventor inserted information at a date later than was actually the case or that he deleted some pages, as would be possible with a loose-leaf notebook. It is also desirable for the inventor to date and sign each page as he records his notes. Furthermore, at intervals he might have these notes read, dated, and signed by a trusted friend or friends, who will subsequently be able to verify the accuracy of the record. To avoid suspicion, such notes should not show erasures or alterations. If changes have to be made, it is best to add a supplementary statement correcting what was recorded previously.

The aforementioned record of the step-by-step development of the device or process should contain all relevant data, including such information as:

1 When the inventor first conceived the idea;
2 When and to whom he disclosed his idea;
3 What he did at each step of development;
4 What results he obtained along the way and whether such were good or unsatisfactory;
5 When he reduced the invention to practice;
6 Who has seen it work or has verified the results;
7 When the witnesses saw it work;
8 When and through whom the inventor took steps to prepare the application for letters patent;
9 Whatever else may assist in securing the patent and in establishing the inventor's precedence over some other applicant.

28.13 Ownership of the Patent

Sometimes there are serious misunderstandings about who should own a patent. Here are a few principles that may serve as a guide:

- An individual who develops his invention entirely on his own and who meets all the requirements for securing a patent is personally entitled.
- An individual who develops his invention independently but who uses his employer's time and facilities to do so can secure the patent, but the employer may have "ship rights" to manufacture the article in question.
- An individual who is part of a research organization is generally hired for the very purpose of inventing. As a rule, the employer of such an individual requires her to agree in advance to assign to the employer any patent that the employee receives in line with her regular work.
- A member of a research organization may be individually entitled to retain a patent on an invention that she develops entirely outside her employer's field of interest and largely on her own time.

Before an engineer undertakes work, for or with others, that may result in an invention, there should be a definite and recorded agreement regarding the ownership of any resultant patent or copyright.

28.14 Secret Information

When attempting to sell an idea, one must be careful about divulging details of an unpatented invention. By the same token, whoever receives information about such an invention should keep the data to himself. Ordinarily, a firm or individual is reluctant to accept confidential information from an inventor unless the inventor—before disclosing any secrets—has patented the invention to which the information relates, has applied for a patent, or agrees to a stated compensation should his invention be accepted by the information recipient. One can easily understand the receiving party's reluctance. He would not want to be subjected to unreasonable claims by the inventor about the value of his device. It is unwise to accept broad or vague ideas, the transmittal of which might position their author to claim compensation should the recipient of the disclosures later develop anything that appears to have been even remotely suggested by the volunteered information.

Negotiations regarding "secret" information may take place even when a discovery, though apparently useful, is not patentable. For example, the winner of a national cake-baking contest may sell the recipe to the sponsoring corporation in spite of the fact that the formula is not a patentable item. A different situation is created when a person with an excellent idea finds himself unable to finance the development of it; he may wish to join forces with someone who can provide the necessary money and equipment to perfect the invention. The respective rights and obligations of the several parties participating in such an arrangement should be clearly defined and the agreement reduced to writing.

Suppose a manufacturer receives from a self-styled inventor what appears to be an offer to disclose the idea for a new gadget of some sort. The manufacturer would do well to proceed cautiously. He should notify the sender that he has not examined the data and that he will not do so unless and until a proper agreement is reached between the parties, setting forth what the first party is to receive (if his idea proves worthwhile and of interest to the manufacturer) and what the latter is to pay for the disclosure. The arrangement may be such that the manufacturer will not be obligated to treat such information as confidential if the invention proves to be (1) unworkable, (2) nonpatentable, (3) previously disclosed to others, (4) previously known to the manufacturer, or
(5) valueless for some other reason.

The following form might be used by a corporation in handling receipt from outsiders of information relating to new ideas or alleged inventions:

DISCLOSURE AGREEMENT

L-M-N Corporation: I request that L-M-N Corporation consider my idea relating to [subject matter of idea very briefl y summarized here] which idea is described in the material herewith and listed below. All additional disclosures relating to the idea submitted herewith shall be subject to the provisions of this Agreement. I understand that no confidential relationship is established by or is to be implied from this submission or from consideration by L-M-N Corporation of the material, and that such material is not submitted "in confidence."

By this request and submission I do not grant L-M-N Corporation, or any of its subsidiaries, any right under any patents on the idea submitted. I agree that, at least unless this Agreement be superseded by a different agreement in writing, I will make no claim against L-M-N Corporation, or any of its subsidiaries, with respect to the idea here submitted, other than possibly for patent infringement.

List of Documents and Samples [follows]: Agreement acknowledged:

L-M-N Corporation **Signed**
By **Address**
Date

It appears that, in settling disputes stemming from the disclosure of inventions, the courts give considerable weight to whether the idea was completely new to the recipient and to just how the latter used it. In case no agreement had been reached regarding the measure of compensation that is to be paid the inventor for utilization of his idea, the courts will try to determine what is reasonable—perhaps an amount comparable to what might have been expected in the way of royalties for use of the process or article if it had been patented.

28.15 Licenses, Assignments, and Grants

An inventor may assign his patent and all rights pertaining to it, or he may permit another person a license or grant[28-13] to "make, use, and vend" whatever is covered by any (or, perhaps, all) of the rights under the patent or under the application for patent. A license may or may not be treated as exclusive, and the agreement between the parties should clarify this point. Licensing, and possibly sublicensing, arrangements may cover manufacture of the article, its use, its sale, or some combination of these.

The licensee may make payment in the form of the royalties, the total varying with the volume of sales by the licensee. On the other hand, he may pay a lump sum for the rights, or may make any other legal arrangements agreed to by the parties.

Unless the applicable agreement provides otherwise, the license carries with it the implied right for the licensee either to sell the patented article or to make use of it himself.

The agreement on licensing arrangements will cover such matters as powers of the respective parties, limitations on these powers, royalties or other payments, anticipated efforts to market the device, actions that would constitute infringement by outsiders, time or territorial limits affecting the license, reports due the patentee, labeling of the article, type of use authorized, and steps designed to prevent misuse. If payment is to be on a royalty basis, the licensor will want to be sure that the licensee is going to make a sincere and adequate effort to procure and market the product involved. On the other hand, the licensee will wish to be protected in the event something occurs that may cause (1) the patent to be declared invalid or (2) use of the patented item to be declared illegal.

An assignment transfers to the assignee the inventor's interest in the patent or an agreed portion of the interest, and the assignment is effective throughout the United States. If the entire interest in an as-yet-unpatented invention is assigned, the patent will normally issue to the assignee upon application by the inventor. If the inventor declines to execute a patent application, or if she cannot be located, the assignee may apply—on behalf of and as agent for the inventor—on a showing that such action is necessary to prevent irreparable damage. If an assignee is to hold an undivided part interest in the invention, the patent will normally issue to the inventor and assignee jointly. Absent a contrary agreement, each joint owner of a patent may utilize the patented invention without accounting to the other owner or securing the latter's consent. If it is desired that the patent so issue, the assignment in either case must have been recorded with the Patent Office not later than the date of payment of the final fee for the patent.

A certificate of acknowledgment, under hand and seal of a person authorized to administer oaths, is **prima facie** evidence of the execution of an assignment of a patent or application for patent. Once recorded at the Patent Office, an assignment, even though bearing various conditions (regarding such things as payment to the assignor), is considered absolute and will remain effective unless and until abrogated by action of the parties or on an appropriate tribunal. In some instances, there may be a time limit set on the duration of an assignment.

Patent pooling is an arrangement among patent owners for the interchange of patent rights so that each partner has the right to use any of such patents or to license others so to do.

Package licensing denotes an arrangement under which a patentee licenses others under more than one of his patents. If all the patents are included in a single package, this may make for simplified accounting.

Under an agreement for cross-licensing, patentee *A* agrees to license party *B* on the understanding that *B* will reciprocate with respect to patents he holds.

One should not accept an assignment or seek a license privilege without first checking the pertinent patent records. Additionally, competent advice regarding exactly what the patent in question covers should be elicited. It is desirable to effect licensing arrangements and the like directly with the original inventor, not through some third party.

28.16 Patents on New Technology

The application of a patent law system conceived in the 18th century to the technology of today has been predictably problematic.[28-14] Patent protection for such creations as genetically altered plants, animals, and computer technology, while highly desirable to encourage research and development, face political, legal, and ethical barriers. The following materials illustrate a few of these difficulties. One should note that many of the key court decisions turn on the construction of statutory language, which is always subject to change. Also, several of the most significant Supreme Court decisions in this area have been by a 5–4 vote, making them highly susceptible to changes in the Court's membership.

Plants Legislation calling for patent rights for plant-related inventions was called for as early as 1892 and endorsed by such figures as Thomas Edison and Luther Burbank. The first Plant Patent Act dates from 1930.

Plants are patentable under the Plant Patent Act,[28-15] which says:

> Whoever invents or discovers and asexually reproduces any distinct and new variety of plant, including cultivated spores, mutants, hybrids, and newly found seedlings, other than a tuber-propagated plant or a plant found in an uncultivated state, may obtain a patent therefore, subject to the conditions and requirements of this title.

The object is to give an exclusive right to propagate a plant invented by grafting, budding, cuttings, layering, division, and the like.[28-16] Bacteria are not patentable as a plant under the Plant Patent Act.[28-17]

In the case of *Imazio Nursery, Inc*. v. *Dania Greenhouses*,[28-18] a patentee brought an infringement action against a competitor claiming violation of its plant patent for a variety of heather. The court said that the Plant Patent Act protects only the single plant and the reproduction from the one original specimen, noting the act's "asexual reproduction" requirement. Thus, reproduction by "grafting, budding, cuttings, layering, division and the like" is protected, but seeds are not. The key to inventing a new plant is the discovery of new traits plus the foresight and appreciation to take the step of asexual reproduction.

A separate federal statute, the Plant Variety Protection Act of 1970,[28-19] is administered by the Department of Agriculture, which issues certificates that offer patent-like protections to the "breeder of any novel variety of sexually reproduced plant (other than fungi, bacteria, or first generation hybrids) who has so reproduced the variety."

Bacterium and Animals The Supreme Court of the United States, by a 5–4 vote, held that a live, human-made, microorganism is patentable, in the case of *Diamond* v. *Chakrabarty*.[28-20] The case involved a genetically engineered bacterium capable of breaking down multiple components of crude oil. No naturally occurring bacterium has this capability. The Court was called upon to decide whether the microorganism constituted a "manufactive" or "composition of matter" within the meaning of the patent statute.

Chief Justice Burger noted initially that the laws of nature, physical phenomena, and abstract ideas are not patentable. Thus, a new mineral discovered in the earth or a new plant found in the wild is not patentable. Likewise, Einstein could not have patented his equation $E = mc^2$, nor could Newton have patented the law of gravity.

The court in Diamond, however, found the altered life form unique and thus a patentable "new composition of matter."

Genetically engineered multicellular animals were ruled patentable in 1987,[28-21] and the first patent to a multicellular animal, for a mouse with a high susceptibility to cancer for use in cancer research, was granted in 1988.

One highly significant and emotion-charged area of new technology remains outside the protection of the patent law; genetically engineered human-based biotechnology products. Although the charge of the U.S. Patent and Trademark Office is to promote research and development that yield society benefits, Patent Office policy is that a claim directed to or including in its scope a human being is not patentable. This policy, apparently based on a construction of the patent statutes and concern over 13th Amendment[28-22] problems, is highly contentious and may well change as technology advances.

However, a patent application's written description of the complete nucleotide sequence of a DNA coding for human fibroblast beta interferon, a protein that promotes viral resistance in human tissue along with a method for isolating that DNA, was said to be adequate for U.S. patent purposes in *Fiers* v. *Revel*.[28-23] Even though the case is far from the final word, since it involved a three-way interference proceeding setting forth the privity of foreign inventors who had filed U.S. patent applications, rather than the validity of a patent itself, the case harkens what is to come.

The possibility of altering, creating, and cloning animals—and maybe even humans—by genetic engineering is becoming a reality. In 1997 in Scotland, the first mammalian clone was produced. Ian Wilmut and Keith Campbell of the Roslin Institute cloned a lamb, named Dolly, from a cell of an adult ewe.[28-24] The implications of this scientific landmark led to much debate over the ethics of cloning humans. At the time of this writing, the lengths to which this technology can and will be extended are unknown. One thing is certain, though—future scientific advances will undoubtedly lead to changes in this legal field.

Computer Programs and Applications Intellectual property disputes involving computer software usually arise under the copyright laws,[28-25] but their use may be subject to patent protection. The best illustration is the case of *Diamond* v. *Diehr*,[28-26] where a process for curing synthetic rubber, which included in several of its steps the use of mathematical formula and a programmed digital computer, was held patentable.

The situation involved the use of well-known time, temperature, and cure relationships to calculate, by means of the Arrhenius equation, when to open a mold press. The applicants characterized their contribution to be the process of continually measuring the temperature inside the mold with the data being automatically fed into a computer that repeatedly recalculated the cure time using the Arrhenius equation.

Clearly, the equation or algorithm itself was not patentable, but the Court, again by a 5–4 vote, held that patent protection for the process of curing synthetic rubber was patentable, noting that even though the process employed a well-known mathematical equation, it did not seek to preempt use of it.[28-27]

Diamond v. *Diehr* may profitably be contrasted with *In re Trovato*, which upheld a Board of Patent Appeals rejection of a patent application for an "invention" aimed at solving the problem of finding the shortest distance between two points, a subject of particular interest to students of the computer science field of graph theory. The invention in question purported to find the optimal path between two locations, whether in terms of distance, cost, capacity, time, or other criteria, by a graph called a configuration space. The configuration space was stored in a data structure that arranged various information needed to solve the shortest path problem.

The Court agreed with the patent examiner's conclusion that the inventor's claims, at least indirectly, recited a mathematical algorithm and did not involve physical structure or process steps beyond insignificant data-gathering steps or postsolution output. Even though the inventor contended that the invention solved a physical rather than mathematical problem and that the data structure was a physical entity consisting of electrical or magnetic signals requiring interaction between the processing and memory apparatus of a computer, the Court found that unlike the invention in *Diamond* v. *Diehr*, the specifications provided no grasp of any underlying physical process and that no circuit diagram was revealed or hardware seriously mentioned.[28-28]

Computer programs written in source code, which bear at least some resemblance to writing, were problematic candidates for copyright protection under the Copyright Act of 1909, which obviously did not contemplate computers. In 1980 the adoption of the Computer Software Copyright Act[28-29] resolved the issue of source code, and courts since have found copyright protection to extend to material stored in object code form on Read Only Memory (ROM) chips, disks, and tapes.[28-30] This is so because these works are a tangible form and can be reproduced with the use of a machine. Also, operating system programs are not precluded from copyright protection as ideas, methods of operation, or processes that may more likely be the subject of patent protection.

However, a computer program menu hierarchy has been held to be a method of operation, and thus not subject to copyright protection where it provided a means by which users controlled and operated the system.[28-31]

Found subject to copyright protection have been nonliteral elements of programs such as structure, sequence, and organization,[28-32] and a program designed to solve engineering structural analysis problems[28-33] that conveyed information, what data the user needs to gather, and how that data should be organized for the program to run properly.[28-34]

28.17 Copyrights and Trademarks

A copyright is provided for in Article I, Section 8, Clause 8 of the United States Constitution. The copyright differs from the patent right in subject matter, in the protection afforded, and in other ways. Copyright law relates to literary and artistic property and is essentially inherited from English

law. Copyrights are under the general supervision of the Library of Congress.

Copyrights involve no search and can be secured by the author upon complying with simple formalities and paying a nominal fee. The author's work must be original, and the copyright term will consist of the life of the author and extend 50 years after the author's death.[28-35]

The owner of a copyright has the exclusive rights to do and authorize the reproduction of the copyrighted work or to prepare derivative works based on the copyrighted item. Nevertheless, the fair use of a copyrighted work, including reproductions, is permissible for purposes such as criticism, news reporting, teaching (including multiple copies for classroom use), scholarship, or research. These activities do not constitute an infringement of copyright. In determining whether the use made of the copyrighted work in a particular case is a fair use, the factors to be considered include the following:

- The purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- The nature of the copyrighted work;
- The amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- The effect of the use upon the potential market for or value of the copyrighted work.[28-36]

A 1990 case illustrates contemporary copyright problems. The well-accepted assumption that computer programming languages were not subject to copyright protection because they were unprotectable ideas rather than an expression of ideas was challenged in *Lotus Development Corp*. v. *Paperback Software, Inc*.[28-37] The trial court there established a precedent with wide-ranging ramifications: a recognition of proprietary rights in computer programming languages. The court found a copyright infringement where the defendant had copied the "user interface" of the plaintiff's 1–2–3 spreadsheet program. The Court did not consider those components of the program to be a programming language, but added that it could not agree that a programming language, such as Pascal, was ineligible for copyright protection. The similarity that gave rise to the infringement was, the Court found, in what they did and how they did it, not in their literal content.

A more recent 2021 case, *Google LLC v. Oracle America, Inc*.[28-37A], illustrates the Court's interpretation of even its own previous decisions is subject to continued review. The 6 to 2 decision concludes:

> (e) The fact that computer programs are primarily functional makes it difficult to apply traditional copyright concepts in that technological world. Applying the principles of the Court's precedents and Congress' codification of the fair use doctrine to the distinct copyrighted work here, the Court concludes that Google's copying of the API to reimplement a user interface, taking only what was needed to allow users to put their accrued talents to work in a new and transformative program, constituted a fair use of that material as a matter of law. In reaching this result, the Court does not overturn or modify its earlier cases involving fair use. Pp. 35–36.
>
> {28-37A: SLIP OPINION No. 18–956. Argued October 7, 2020—Decided April 5, 2021 }

The federal copyright law defines pictorial, graphic, and sculptural works within its coverage to include two- and three-dimensional works of fine, graphic, and applied art, and technical drawings, including architectural plans.[28-38] Even more important, the Architectural Works Copyright Act Protection Act of 1990[28-39] extended copyright protection to architectural works as well. Thus, some earlier court decisions[28-40] finding no infringement where the architectural plan was "used" to construct a structure, but not copied, have been superseded by statute.

Architectural plans and structures are subject to copyright protection where the author has independently created the work and the work reflects creativity, regardless of how simple the design. If a house design is sufficiently original, copyright protection is not precluded because the design is also utilitarian because architectural works by definition are at least partly designed to serve a useful function.[28-41] This protection extends to the most mundane, functional products of commercial architecture so long as the minimal originality requirement of copyright law is met.

A builder may present ideas and concepts to an architect who prepares the plans, but even if the builder retains approval authority, his participation is insufficient to establish coauthorship. Ideas and concepts are not copyrightable.[28-42]

Derivative works are copyrightable if they have recast, transformed, or adopted a preexisting work and have original aspects that are more than trivial. The derivative work must not consist of actual copying and must include more than mechanical copying. In short, the work must be the original product of the derivative claimant.[28-43] Also, the producer of the derivative work must have the consent of the copyright holder of the preexisting work for the creation of the derivative.[28-44]

Two cases in which copyrights of architectural drawings and structures were found to have been violated are instructive.

In one case, a copyright for a residential floor plan, the distinguishing characteristic of which was the placement of the family room in the front of the house, normally the location of a more formal living room, and a new exterior facade that used double-gabled roofs and other components in an original (though not particularly distinguished or imaginative) way was found to have been infringed by the construction of a nearly identical house by a builder whose former employee testified that he was told to put a rendering of the copyrighted plans into the defendant's computer while the defendant was negotiating with customers interested in the protected design.[28-45]

In another case,[28-46] an architect completed the design of and drew the plans for a custom residence to be built by the defendant. During the design phase, the parties faxed back and forth preliminary drawings, but the final design was the work product of the architect.

The builder constructed the house in accordance with the plans with minor modifications such as enlarging windows, changing a wall height and the location of bathroom fixtures, and other minor changes of the type customarily made by a builder in the construction of a house.

Following the house's completion, the builder utilized the same fl oor-plan drawings to build a second house, identical to the first except for a modified front elevation, the addition of trim, and a more open entry, all without the knowledge or consent of the architect.

The court found that the changes were insubstantial and not original with the builder and that his contributions were not independently copyrightable. Nor were they copyrightable as a derivative work since no consent had been obtained from the architect. The builder was thus enjoined from further infringement of the architect's copyright on the original design.

Copyright protection has also been extended to include digital audio recording devices and media to discourage unauthorized copying of audio information, such as music, in the digital format.[28-47]

Trademarks come within the jurisdiction of the Commissioner of Patents. A trademark is any word, name, symbol, or the like, adopted and used

by a manufacturer or merchant to distinguish his goods from a comparable product manufactured by others. Trademarks may also be used to identify services and, in that connection, are generally referred to as *service marks*.

Congress has enacted precise statutes covering the use of trademarks in interstate commerce, and the commissioner of patents has formulated specific rules for obtaining registration of such trademarks. A registration lasts for 10 years and may be renewed as many times as the owner can show continuation of active use in interstate commerce.[28-48]

A person should seek to register a trademark only on such materials as he has a bona fide intent to use. He should not attempt to obtain trademarks on each of a series of names or slogans that he thinks he may want to use at some time in the future— such a scatter-gun approach being designed to prevent someone else from using such names or slogans meanwhile. Generic words or terms cannot properly be registered as trademarks.

However, science has been held not generic for a magazine devoted to scientific subjects, as it had developed through extensive use a secondary meaning that would be infringed by *Science Digest* used in a way to emphasize "science" and minimize "digest."[28-49]

Chapter 26—Real and Personal Property

26.1. Define "real property"; differentiate it from "personal property."

26.2. What is a "condominium"? A "cooperative"?

26.3. What general limitations are there upon one's use of his or her own land?

26.4. Do water and mineral rights usually accompany the transfer of title to land?

26.5. What aspects of the property should one investigate before buying a given piece of real estate? Explain fully.

26.6. If a person buys some land, what rights, broadly speaking, does he acquire regarding such land?

26.7. Can two or more persons own a given piece of land? If so, on what basis?

26.8. If two persons own a given piece of land, can one sell it despite objections by the other? Explain.

26.9. What is a "life estate" in real property? If a person has a life estate in land, can he sell the property itself? Why?

26.10. Can ownership of real property be conveyed orally? Why?

26.11. Under what conditions is real property transferred without the "approval" of the owner, and very likely against her wishes?

26.12. How may realty be conveyed?

26.13. Explain the steps to be taken in selling a piece of realty.

26.14. What is an "abstract of title"?

26.15. What points are generally covered in a bond for deed?

26.16. Explain what steps are involved at the "closing" of a real estate sale.

26.17. What is a "quitclaim deed"? A "warranty deed"?

26.18. If a person buys some land and the deed states "in fee simple," what does this mean for the purchaser?

26.19. What are the essentials in a deed?

26.20. What is a "title search"? Why is one made?

26.21. Explain the function and operation of eminent domain.

26.22. What is a mortgage on real property?

26.23. Can a mortgage be assigned? Can a lease be assigned?

26.24. Explain the proper steps to take if one is (*a*) to mortgage his real property, (*b*) to pay off a mortgage.

26.25. If a piece of real estate is sold, what of the existing mortgage thereon? Does the mortgagee have any effective objection to the sale or to the identity of the purchaser?

26.26. Why does a mortgagee generally require the mortgagor to sign a bond or a promissory note as well as the mortgage itself?

26.27. What is a lease? What restrictions are normally imposed upon the use of leased property?

26.28. As regards realty, distinguish between "sale" and "lease."

26.29. What is meant by an "encumbrance" in regard to real property? Give several illustrations.

26.30. What is an easement? By what means is one obtained? Can the easement be (*a*) sold or (*b*) relinquished?

26.31. What is a license for the use of land? How is it obtained? How is it terminated?

26.32. Distinguish between "lease" and "license." Illustrate.

26.33. What is the meaning of "profit a prendre"?

26.34. On what basis is the state able to take land (needed, for example, for a new highway) regardless of the wishes of the property owners involved? What is the justification?

26.35. What is an "implied easement"?

26.36. What is the “right of lateral support”? Illustrate.

26.37. Distinguish between “statutory” and “common law” dedication.

26.38. What is the purpose of zoning?

26.39. Distinguish between zoning and planning as related to land use.

26.40. Brown owned 25 acres of woodland situated off the highway behind Sullivan’s property, and she had an easement across the latter’s land for access to the woodland. Thompson offered Sullivan a handsome price for his property, intending to construct a housing development thereon. Can Sullivan (or Thompson, after the sale is consummated) terminate Brown’s easement without her consent? Elaborate.

26.41. What is the mortgagee’s situation if the mortgagor fails to pay the taxes, a sewer assessment, and insurance on the property? Explain. What steps can the mortgagee take to enforce his rights?

26.42. What is a “covenant” as the term is employed in the law of real property? Illustrate.

26.43. What remedies are available for breach of a covenant?

26.44. Where should the instrument evidencing the conveyance of real property be recorded? Why the recording?

26.45. How are boundaries generally recorded?

26.46. What are “metes and bounds”?

Chapter 27—Above and Below—Air, Water, and Mineral Rights

27.1. Define (*a*) “riparian rights,” (*b*) “riparian lands,” (*c*) “riparian owner” (or “riparian proprietor”).

27.2. Define (*a*) “watercourse,” (*b*) “surface waters,” (*c*) “percolating waters.”

27.3. What is meant by “reasonable use” of water as applied in matters relating to riparian (or water) rights?

27.4. How may the riparian rights of neighboring landowners vary? Explain.

27.5. What are the common law principles of riparian rights? What uses of water do these common law principles allow?

27.6. What is “reasonable” use as respects riparian rights?

27.7. What is meant by the right of use of water through prescription? Through prior appropriation?

27.8. List (in order of probable priority) the various uses of water that may be involved in questions of riparian rights.

27.9. Who is likely to own the land constituting the bed (*a*) of a small creek? (*b*) of a navigable stream?

27.10. Is there any “legal” limit to the amount of water that a farmer may take from a watercourse adjoining his land for use in the irrigation of his land? Explain.

27.11. Does the owner of a hydroelectric power site have exclusive right to develop the water power at that site as she pleases?

27.12. What is the difference between percolating water and artesian water?

27.13. Who ordinarily has the right to the use of percolating waters? Within what limits?

27.14. Who may set up and enforce (*a*) a water code, (*b*) regulations affecting navigable waterways, (*c*) rules regarding prevention of pollution of streams?

27.15. What is meant by “floodwater”? Who can use it or guard against it?

27.16. What is meant by “flood control”? Who has charge of this (*a*) in major rivers?
(*b*) in small streams?

27.17. What is the difference between a reservoir and an ordinary lake? What should the planners of the former consider regarding persons living downstream?

27.18. If a riparian owner possesses a site that is suitable for the development of hydroelectric power, can she sell the “power rights” without selling the land, or vice versa?

27.19. Carter bought some low and partially swampy land for a housing development. She filled in the land to raise the elevation of the surface approximately 5 feet. This caused the level of the groundwater to rise upgrade from Carter’s land, and this rise in the water level turned Smith’s meadow into a swamp. What can Smith do about the matter?

27.20. Turner, a farmer, cut drainage ditches to drain a swampy pond in his pasture. Bradley, a neighboring farmer, then found that his spring for watering his stock dried up. What can Bradley do about his former spring?

27.21. Assume that the city of Southford plans to build a reservoir on Oak Creek, using most of the water available and designing the spillway so as to divert the excess water to Roaring Brook. (*a*) Has the city the right to do this? (*b*) What steps should be taken by the city in clearing the way for construction of the reservoir? (*c*) What steps may be taken by riparian owners downstream along Oak Creek to protect their rights?

27.22. Clark built a dam in Rice Brook (entirely on his own land) and, during the months of July and August, piped all the water to his new irrigation system. Dawson, who owned a farm downstream, tried to get an injunction to require Clark to permit part of the water to reach Dawson’s property. Do you think that Dawson will be successful? Explain.

27.23. Alton built a small dam on his own property to create a small fishpond. The overflow from the pond continued downstream in the same

channel as before, crossing Braxton's land. Has Alton damaged Braxton? Explain.

27.24. The X-Y Power Co. built a power dam on Hoton River. The company agreed to limit the level of the impounded water to elevation + 520 feet. During an unusual spring thaw and rain, the spillway jammed with ice, and the water rose to elevation + 529 feet, flooding several cottages. The owners of these cottages sued the company for damages caused by this flooding. What do you think of their rights in this situation?

Chapter 28—Intellectual Property

28.1. What is the principal objective of the U.S. patent system?

28.2. On what authority is the U.S. patent system based? When was this system inaugurated?

28.3. What is a "patent"? What is its life?

28.4. What is a "design patent"? May plants be patented? What about bacteria?

28.5. Are current patent laws adequate to cope with biotechnology advances? Mathematical algorithms?

28.6. Is a patent a contract? If so, what are the rights and obligations of the parties?

28.7. Who administers the patent laws of the United States?

28.8. What are the limits of the areas in which the U.S. patent laws are effective?

28.9. Does the Patent Office try to advise the patentee whether a patent will be a financial success?

28.10. List the elements that are generally necessary for patentability of an invention.

28.11. Describe the procedure to be followed in applying for a patent.

28.12. What is the meaning of the word "specifications" when referring to patent matters?

28.13. What is the meaning of the phrase "statement of invention" when referring to patent matters?

28.14. Referring to patent matters, what is (*a*) an "infringement"? (*b*) an "interference" proceeding?

28.15. When and why may drawings be required in an application for a patent?

28.16. What are the "claims" made in connection with an application for a patent? Why are they important?

28.17. What is meant by "complete disclosure"?

28.18. Differentiate between (*a*) a "sole" invention and (*b*) a "joint" invention.

28.19. Define "copyright" and "trademark." Illustrate how they are applied.

28.20. What is "fair use" of copyrighted material?

28.21. May computer programs be copyrighted? Patented?

28.22. May architectural plans be copyrighted? May ideas and concepts?

28.23. Of what significance is the "date of conception" of an invention?

28.24. What are the meaning and importance of the "date of disclosure" referring to inventions?

28.25. What is meant by "diligence" in matters of invention?

28.26. Referring to inventions, what is meant by "reduction to practice"?

28.27. What procedure should be followed by an inventor when developing an invention?

28.28. What precautions should both parties take when dealing with the possible disclosure of secret information?

28.29. Explain and illustrate the licensing of a party to use a patent.

28.30. What is (*a*) a "grant" of patent rights to a party? (*b*) an "assignment"?

28.31. What is meant (*a*) by "patent pooling"? (*b*) by "cross-licensing" of patents?

28.32. What time limit is there on the life of a patent? Can this life be extended?

28.33. Can the Patent Office prevent the disclosure of patent data? When?

28.34. Why may a manufacturer stamp on an article (produced by him) the words "Patent applied for"?

28.35. In case of a grant of patent rights on a royalty basis, has the grantee any implied obligations with respect to the grantor?

28.36. If claims in an application for a patent are made extremely narrow, what may happen? If claims are extremely broad, what may happen?

28.37. If a patent application contains six claims and the Patent Office finds that two are invalid before issue, must the application be thrown out? What can be done?

28.38. Kimball was a mechanical engineer with an electric power company. Assume that she devised and built an apparatus for the disposal of coal ashes from the boilers of one of the company's plants. Two years afterward, she applied for a patent on this equipment. Do you think she could get the patent? Explain.

28.39. *X* was trying to develop and patent a new device for dust-collecting equipment. He had *Y*, who was in his office, assist him in perfecting the invention, and *Y* showed that certain improvements, which she suggested, were vital to the successful operation of the equipment. *X* patented the invention using *Y*'s suggestions, but *Y* claimed that it was a joint invention. Is *Y* justified in her claim? Explain.

28.40. Jones, a machinist, made and used a clever improvement in an automatic lathe, but he did not think that the device was patentable. Two years after the device was installed at the shop where Jones was employed, a visiting sales engineer saw it, had the apparatus installed on the lathes that his company manufactured, and applied for a patent on the device. Jones heard about the patent application. Could Jones attack the patent that might be issued on the device? Explain.

28.41. Long developed a special formula for a cough syrup, and she kept it a secret even though she manufactured and sold the medicine. Short discovered the secret formula and produced and marketed the same medicine under a different name. (*a*) Can Short patent the formula? (*b*) Can Long stop Short from making the competitive product? Explain.

28.42. *X* patented a special fountain pen. *Y* copied it and started manufacturing and selling the same pen. *X* appealed to the Patent Office to stop *Y*'s activities. Will the Patent Office do this? Why?

28.43. Based on the case in question 26.42, what money damages can *X* collect from *Y* for goods produced before *X* learned about *Y*'s activities? How can *X* stop *Y*'s production?

28.44. Brown invented and patented a toy airplane. He later made a certain improvement in the toy and continued manufacture of the modified toy under the original patent. Is his improved device properly protected? Explain.

28.45. If a chemical product is made by a certain patented process, can someone else produce and sell the same material if he can manufacture the chemical by a different?