

# Patenting Insurance

**When you build a better mousetrap, you'd better file a patent to keep the world from stealing it.**

**But can you patent the insurance policy that covers the mousetrap's inventor, too?**

By Tom Bakos

**W**HEN BEN FRANKLIN INVENTED HIS FAMOUS STOVE, he shared his idea freely with the rest of the world. Franklin didn't think knowledge was the property of its discoverer, and he declined an offer to retain exclusive rights to the Franklin stove. He was into sharing and thought he would benefit in return from the freely shared ideas and inventions of other like-thinking people. The community in which Ben Franklin lived may not have practiced the brand of capitalism we practice today, but it didn't take long for that to change. Soon, someone else was making a lot of money manufacturing Franklin's invention. And by the time Franklin died in 1790, the newly ratified U.S. Constitution contained an article offering patent protection to individual inventors for a limited time. Thus, the concept of intellectual property was born in the newly formed United State

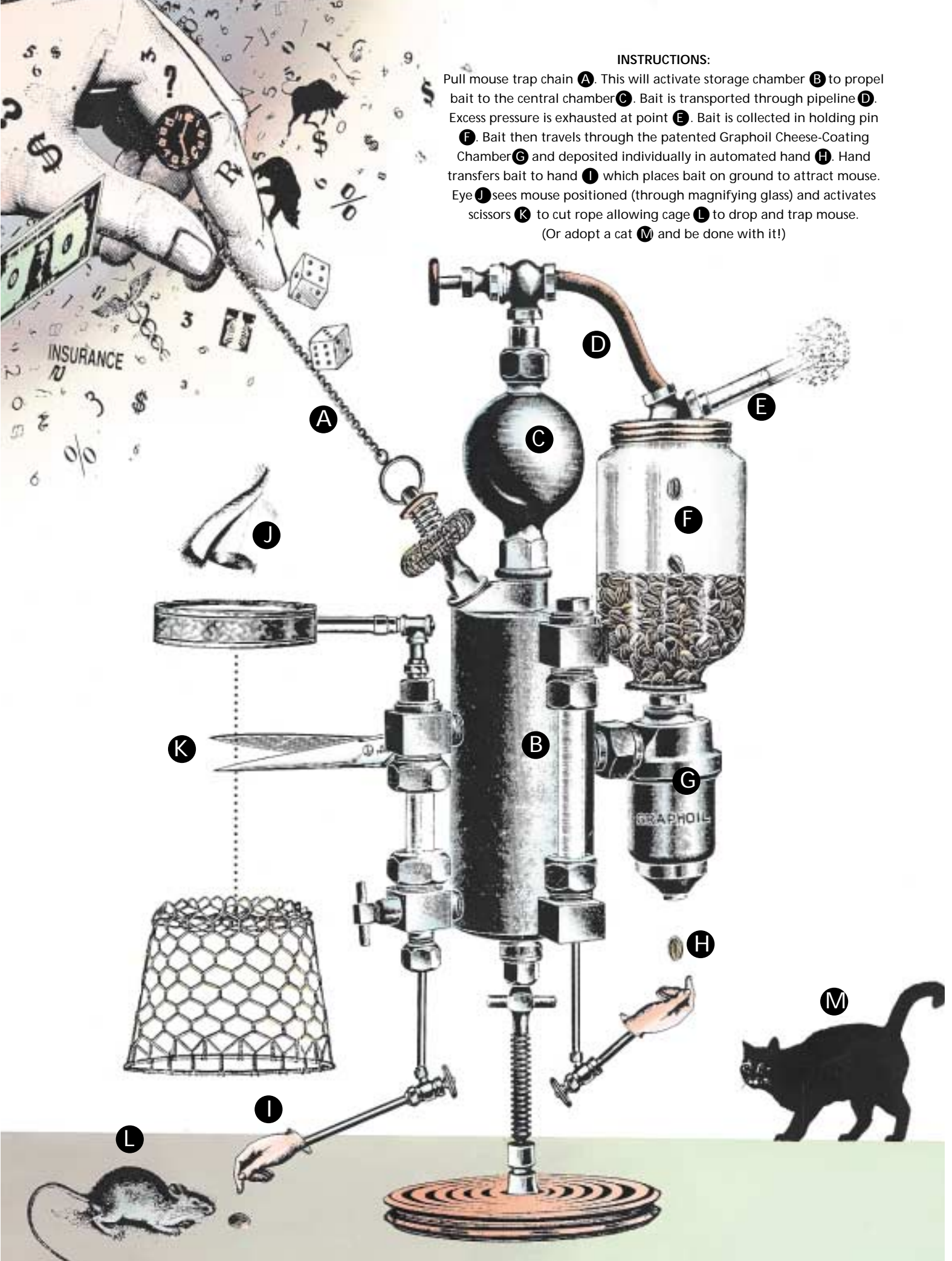
Since then, more than 6 million patents have been issued. In 2001 alone the United States Patent and Trademark Office (USPTO) received more than 350,000 new patent applications and issued 187,824 patents. And, while you may think of inventions in terms of things like the phonograph, the electric light, or Play-Doh®, inventions can also be the processes or methods used to create things. Even living organisms (microorganisms, usually) can be patented. In fact "any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof" can be patented.

Fueled by advances in technology, methods of doing business have become better planned, more focused, and fairly precise. Business method innovators began to feel that their new and useful insights were entitled to some protection. Initially, the business methods for which patent protection was sought were processes embodied in computer software, such as Amazon.com's 1-Click system for ordering items over the Internet.

ILLUSTRATION: JOHN PACK

**INSTRUCTIONS:**

Pull mouse trap chain **A**. This will activate storage chamber **B** to propel bait to the central chamber **C**. Bait is transported through pipeline **D**. Excess pressure is exhausted at point **E**. Bait is collected in holding pin **F**. Bait then travels through the patented Graphoil Cheese-Coating Chamber **G** and deposited individually in automated hand **H**. Hand transfers bait to hand **I** which places bait on ground to attract mouse. Eye **J** sees mouse positioned (through magnifying glass) and activates scissors **K** to cut rope allowing cage **L** to drop and trap mouse. (Or adopt a cat **M** and be done with it!)



Insurance products and processes embody applied business methods. Often they use original mathematical logic that the USPTO recognizes as patentable. The range of things open to patent includes new insurance products (or possibly improvements on existing products), illustration systems, sales methods, e-commerce distribution techniques, and almost any other thing that could be characterized as a business method.

### The Time Is Now

The place to go to get information on U.S. patents is the USPTO website: <http://www.uspto.gov>. A search engine enables you to find the actual wording for issued and applied-for patents in any area of interest. Statutory requirements and prior judicial history dictate the language used to describe inventions in patents, and descriptions follow their own unique syntax.

Reading a patent requires dedication and perseverance. Patents related to insurance products or concepts are no different. The description needs to be as broad as possible in order to achieve the greatest protection the Constitution provides. The resulting fog of verbiage may hide a clear view of what the invention looks like and what it actually does.

The USPTO website search engine allows independent searches of *issued patents* and *patent applications*. Focused searches can be done in order to find issued or pending patents that relate closely to or are exactly what the searcher is interested in finding.

Interest in patenting life insurance products or concepts has been growing. Between 1790 and April 1, 2002, 166 insurance patents have been issued. The table on page 37 shows a breakdown of these patents by year of issue. Note that 134 of these patents have been issued during the past seven years (1996–2002) with significantly fewer in earlier years. This, by itself, indicates a surge in recent interest in insurance-related patents. Even more telling, however, a search on patent applications using the same search criteria turns up 54 insurance-related patent applications made during the 15-month period of January 2001 through March 2002. This indicates that insurance patents are becoming a bigger part of the insurance business.

Prudent innovators in the insurance business should be aware of the opportunity patent protection provides and the restrictions that other patents impose on them. A good place to start is a review of the underlying law and regulation that applies to patents, trademarks, and copyrights.

### The Applicable Law and Regulation

Patent, trademark, and copyright law, regulation, and judicial enforcement are the domain of the federal government. The laws established by Congress become part of the United States Code (USC). Related laws or laws governing similar programs are lumped together under the USC. Title 35 of the USC contains laws relevant to patents and trademarks.

Under 35 USC 1(a), the USPTO is created and charged with two distinct functions: (1) granting and issuing patents and (2) registering trademarks. This act specifically allows the USPTO

to establish regulations for carrying out these activities.

The Code of Federal Regulations (CFR), enacted by the appropriate agency of the government, provides specific guidance on how the law is to be applied. Regulations enacted by the USPTO that apply to patents and trademarks (and by the Copyright Office for copyrights) are contained in Title 37 of the CFR.

The Patent Cooperation Treaty (PCT) provides an international patent application that allows inventors to easily seek patent protection in foreign countries that have adopted the treaty.

### What Is a Patent?

A patent is a property right the U.S. government grants to the inventor or discoverer of a “new and useful process, machine, manufacture, or composition of matter.”

Over the course of the past couple hundred years, many categories of patents have been created. Many of them were never even imagined by the framers of the Constitution, but Congress has kept up with the times.

As quoted above, 35 USC 101 identifies four broad categories of patents: *processing methods*; *machines*; *manufactured products*; and *compositions of matter*. These four broad categories provide a *statutory* description of what are known as *utility* patents. In addition, the USPTO has established a category for *plant* patents and *design* patents.

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*Plant* patents cover anyone who invents or discovers and asexually reproduces any distinct and new variety of plant, with some exceptions noted in the law. Asexual reproduction means propagation other than by seed. Typically, plant patents are issued for fruit-bearing trees or ornamental plants. For example, a patent was issued in 1984 for the African violet.

*Design* patents can be issued to the inventor of any “new, original, and ornamental design for an article of manufacture.” In 1879, for example, Auguste Bartholdi of Paris was issued a U.S. design patent for the design of a statue, “Liberty Enlightening the World.” This is the now expired patent for what we call the Statue of Liberty. Currently, design patents have a term



### Class 705, Subclass 4 (Insurance) Patents Issued by Year

1996–2002 . . . . .	134
1991–1995 . . . . .	18
1986–1990 . . . . .	12
1981–1985 . . . . .	1
1976–1980 . . . . .	0
1790–1975 . . . . .	1

of 14 years from the date of grant.

Patents for insurance products and processes fall into the *utility* category as *processing method* or *business method* patents. They have their own classification category in the U.S. Manual of Classification: 705/4. This is a relatively recent area of development in the patent arena and subject to a great deal of controversy. Processing methods come somewhat close to abstract ideas, laws of nature, or physical phenomena, which the United States Supreme Court has held are not patentable because they're fundamental truths or abstract ideas in which no one can claim an exclusive right.

However, since the Constitution was written, our world and our processes have become more complicated, and sometimes more abstract. The use of computer programming to solve problems through the application of the fundamental laws of physics and abstract mathematical ideas is one example. While a processing or business method may, in its parts, be abstract and idea-like, as a whole it can produce a new and useful result that can be thought of as an evolutionary step from more clearly patentable mechanical processes. The courts have become more accepting of business method patents in recent years, and this has encouraged their development. The USPTO is addressing this issue, and current materials on business method-related patent issues can be found on the USPTO website.

Assuming an invention falls within one of the basic categories of patentable things (utility, plant, or design), it must meet three basic requirements to be issued a patent:

- It must be *new*;
- It must be *useful*;
- It must *not be obvious*.

The requirement for newness or novelty extends further than one might think. If you disclose your novel idea to the public, or sell a product based on it, you have one year to file for a patent or you forever lose the right to do so. You, in effect, be-

come like Ben Franklin. Since no one but you, the inventor, can file for a patent on your invention, if you reveal your invention to the public and don't apply, your invention becomes part of the public domain.

The invention must have a useful purpose and must actual-

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Inventors must provide a complete **description** of the invention that allows **others skilled in the art** to make and use it.



ly work. A mere idea (the cloaking technology developed by the Klingons, for instance) can't receive a patent.

An invention is obvious, according to patent law, "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."

In order to receive patent protection, an inventor must be willing and able to reveal how the invention works. Inventors must provide a complete description of the invention that allows others skilled in the art to make and use it. Sometimes the applicant must supply drawings to explain the invention, and a model may also be required.

### Patent Protection

Essentially, a patent grants an inventor the right to the exclusive use of his invention for a limited time. The patent holder (or heirs or assigns) has "the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States." If the invention is a process, the right extends to excluding others from using, offering, selling, or importing the process. The breadth of this protection is defined in the specifications or claims made in the patent application. Therefore, special care must be taken when describing an invention or process in order to include all its possible embodiments.

Patent protection for utility (and plant) patents begins on the date the patent is issued and ends 20 years from the date of the earliest application in the United States. This 20-year period was introduced as part of the General Agreement on Tariffs and Trade (GATT), which took effect in June 1995. In addition to all of the other requirements, the issue or continuation of a patent is, of course, contingent on the payment of the appropriate fees.

Though a patent prevents others from infringing on the inventor's *exclusive* right to make, use, offer for sale, sell, or import his invention, it's no guarantee that the inventor will profit from his invention. Nor is there any granting of a special right to the inventor to make or use it. The inventor must comply with governing laws, regulations, procedures, and standards—just like anyone else.

Circumstances can conspire to make a seemingly sure-fire moneymaker fall far short of expectations. For example, on October 7, 1952, a patent was issued to Bernard Silver and Nor-

man Woodland for the invention of the bar code. But it wasn't until 1974 that the Universal Product Code became practical, 22 years after the original patent was issued (and after it had expired). Neither Silver nor Woodland made much money from their invention.

### Enforcement of Patent Rights

There are no special police to enforce patent rights, so the inventor is primarily responsible for being watchful and taking action if he suspects infringement. Patent law sets forth the *legal* remedies available for enforcement of patent rights. But since infringement might be inadvertent, particularly in a new area like insurance products or processes, a non-legal approach might be the best way to find a solution.

To receive the full protection of the law, the inventor must give public notice (including the patent number) that his device or process is patented. This allows anyone to easily find and determine the scope of the inventor's exclusive rights. Without the notice, a patentee can't collect damages for a patent infringement. An infringer who was not given advance notice, but who continues to infringe after receipt of notice, is subject to damages relative to that *subsequent* activity only.

Often, inventors will mark a product as "patent applied for" or "patent pending." This notice has no legal meaning since patent protection begins on the date a patent is issued, not the date it's applied for. An inventor can't exclude others from making, using, offering for sale, or selling his invention while the patent is being reviewed. So why use it?

Before the Internet, competitors didn't know much about what patents had been applied for. Inventors wouldn't routinely disclose where they were in the review process, which averaged about three years. So a competitor wouldn't know whether it had three years or three weeks to bring a potentially patent-infringing product to market and recover its development costs. It's this uncertainty that the "patent pending" notice is intended to create.

Also, prior to GATT when the patent term was 17 years from issue, inventors could benefit by delaying the review process and extending their "patent pending" period of quasi-protection and total years of protection. But the current practice of publishing patent applications on the Internet eliminates any mystery about dates, and GATT set the term of a patent at 20 years from the application date.

## Patent Infringement and the Court

The United States Court of Federal Claims hears patent infringement cases in the appropriate District Court. Appeals are brought to the Court of Appeals for the Federal Circuit, which was created by Congress in 1982. This court is unique, defined by its jurisdiction over patent law (among other limited specific areas) rather than by geographical boundaries.

The courts interpret the law and evaluate claims of infringement. A *literal* patent infringement occurs if the basic elements of a device or process are identical to the elements of an already patented device or process as described in the patent's claims. That's why it's important for patents to be as inclusive as possible, to get the broadest protection.

Patents may also be infringed when a competitor makes trivial changes in order to avoid a literal infringement. Federal courts then apply the "doctrine of equivalents," which a 1950 court decision described as follows: "If two devices do the same work in substantially the same way, and accomplish substantially the same result, they are the same, even though they differ in name, form, or shape."

At the time, this was applied to chemical as well as mechanical processes. Computing processes weren't a big factor until the widespread use of computers. In fairness, the doctrine could also be used to prove a lack of infringement if a same result were produced in a substantially different way, even though the literal language of the claims was comparable.

More recent court rulings have determined that the "doctrine of equivalents" must be applied to the two inventions being compared as a whole rather than to their individual parts. In addition, when considering how to apply the doctrine to an existing invention, context is important. A *pioneer* invention, for example, which defines a whole new field, will probably have a much wider range of equivalents than an invention that makes a minor improvement in a developed area.

Courts can provide injunctive relief "to prevent the violation of any right secured by patent" and, in cases where infringement has occurred, set damages "adequate to compensate for the infringement but in no event less than a reasonable royalty for the use made of the invention by the infringer." The court is allowed to increase these damages up to three times.

## The Rise of Business Method Patents

In July 1998, a Federal District Court ruled that computer systems weren't patentable because they didn't satisfy the necessary *statutory* requirements and interpretations in prior court rulings. Essentially, the argument was that the computer programs in this particular patent merely manipulated numbers without creating anything new.

The Circuit Court of Appeals reversed the decision (subsequently upheld by the U.S. Supreme Court). It held that an article was patentable subject matter if it focused "on the essential characteristics of the subject matter, in particular, its practical

utility," not on the specific category in which it would be placed. It determined that computer programs, which are manifestations of mathematical processes, could produce something useful "even if the useful result is expressed in numbers, such as price, profit, percentage, cost, or loss."

Further, the court held that business methods "should be subject to the same legal requirements for patentability as applied to any other process or method." As a result, patents for insurance products and processes—in effect, business methods—have been on the rise.

## The Impact of Patents

In the insurance business, successful innovations are quickly and routinely copied and implemented. Many, if not all, of these business methods would have been patentable had a patent been applied for. A search of insurance patents clearly shows that more of these previously nameless inventors are seeking and receiving patents, which means that great, innovative insurance ideas will no longer belong to everyone—at least not until 20 years has elapsed.

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TOM BAKOS IS A CONSULTING ACTUARY IN HARRISBURG, PA. HE CAN BE REACHED AT [TBAKOS@BAKOSENTERPRISES.COM](mailto:TBAKOS@BAKOSENTERPRISES.COM).

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