

Inventors

JUNE 2016 Volume 32 Issue 6

DIGEST

Hold It Right There

LILY WINNAIL'S HANDLE PAD
ARMS MOTHERS WITH COMFORT

To Store and Protect
NAVY VET'S SHADOWBAG
ORGANIZES ACCESSORIES

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HAD A LARGER VISION

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MACHINE LETS DOGS
PLAY FETCH THEMSELVES

Marketing Missteps
BLUNDERS TO AVOID

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SLA 3D PRINTER



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EDITOR-IN-CHIEF

REID CREAGER

ART DIRECTOR

CARRIE BOYD

CONTRIBUTORS

JACK LANDER

JEREMY LOSAW

GENE QUINN

JOHN RAU

EDIE TOLCHIN

GRAPHIC DESIGNER

JORGE ZEGARRA

INVENTORS DIGEST LLC

PUBLISHER

LOUIS FOREMAN

VICE PRESIDENT, INTERACTIVE AND WEB

MATT SPANGARD

FINANCIAL CONTROLLER

DEBBIE MUENCH

ASSISTANT TO THE PUBLISHER

KARA SHEAFFER

ADVISORY BOARD

KEN BLOEMER

JAMES DALY

PAUL SCHOLS

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520 Elliot Street

Charlotte, NC 28202

info@InventorsDigest.com www.InventorsDigest.com

reid.creager@inventorsdigest.com

Their Stories Always Have Pull



My sister's old boyfriend's dad invented the pull-tab opener on cans. Yes, that's Six Degrees of Kevin Bacon territory, but people always want to know more about Ernie Frazee than I can tell them.

Inventors fascinate us. How did they conceive their idea? How did they see their concept to completion? How much money did their invention make? In the case of Ernie Frazee, the answers: During a family picnic in 1959, Frazee forgot to bring a can opener and used a car bumper to open his can of beer. He got the first patent for the pull-tab can in 1963 and later invented a new version with a ring and a pre-puncturing tab. Frazee estimated that in 1988, the year before he died, the tabs were used on about 150 billion cans. He got royalties from the Aluminum Company of America for each can produced. So even if he was getting only a penny a can, that's \$1.5 billion.

Inventors intrigue us on a human level—how their minds work, life circumstances that often influence their discoveries, what made them persevere through the inevitable challenges of bringing a concept to fruition. A recent *Inventors Digest* readers' poll affirmed that you want more stories about inventors.

So as I begin as editor-in-chief following almost three decades as a writer and editor at major newspapers, storytelling will be a foremost priority. We want to inspire you by showcasing people's accomplishments. We want to educate people who don't know how to begin the process of getting their innovation patented by telling the stories of those who have been there. We want to promote a sense of identification with people who share your spirit of adventure. We also want to educate you about patent law news that will directly and indirectly affect anyone with an idea and a plan.

If you have a story idea, please write to reid.creager@inventorsdigest.com. I'm looking forward to being amazed.

Earlier this year, I interviewed HowStuffWorks founder Marshall Brain for a story in *The Charlotte Observer*. His comments about the future of artificial intelligence made me glad I'm not 20:

"Eventually, humanity will be introduced to an artificially intelligent being that puts all these fronts together and is equal to human intelligence. This second intelligent species will rapidly become twice as capable as human intelligence, then four times, and so on. It will eventually reach a state where it looks back at its human creators in the same way humans look at insects."

Doug Engelbart may have been even more alarmed. One of recent history's most acclaimed innovators and the subject of this month's Time Tested feature, Engelbart wrote a groundbreaking paper in 1962 that outlined society's need for augmenting human intellect to keep up with technology. His daughter, Christina Engelbart, provided us unique context for those contributions—as well as warm personal memories of a man who personified Father's Day.

She acknowledges that the power of artificial intelligence will only grow but offers hope for the human condition. "You can only program so much. There's something in our brains that takes us way beyond that in terms of imagination, creativity, the nuances of working together."

That's the underlying premise in our fascination with inventors and inventions. Human intelligence lives on—sometimes despite our efforts to the contrary.

—Reid

INGENUITY IS AMERICA'S MOST VALUABLE RESOURCE.

DON'T TREAT IT LIKE A CHEAP COMMODITY.

America has been on the cutting edge of innovation for over 200 years because of a strong patent system. If Congress passes harmful patent legislation, it will devalue the system that has helped turn America's best thinking into our nation's #1 export. That will mean fewer new ideas brought to market, fewer jobs and a weaker economy. We can't maintain our global competitive edge by undercutting our greatest asset.

**SAVE THE
AMERICAN
INVENTOR**

TAKE ACTION AT SAVETHEINVENTOR.COM

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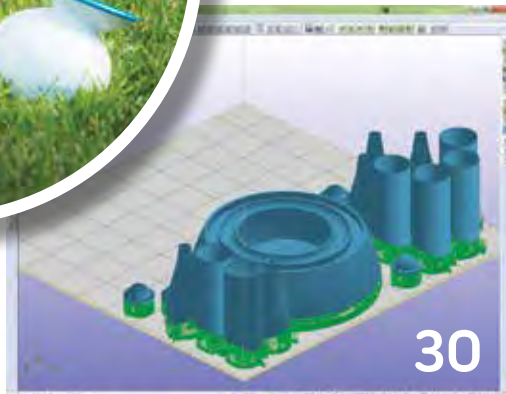
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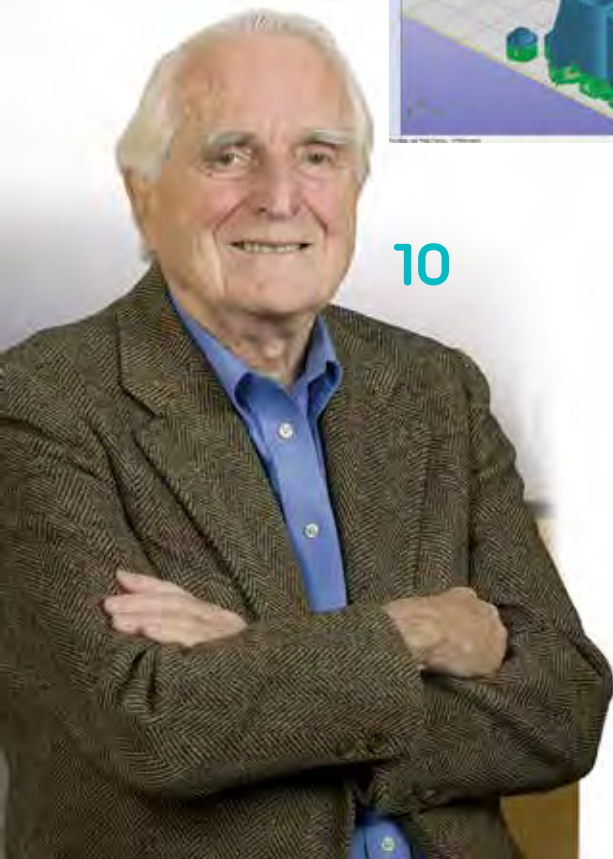
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Bright Ideas

Compiled by Eleanor Merrell

Braun CoolTec shaver

TURNING DOWN THE HEAT

us.braun.com

For men who use electric razors, heat can be the enemy. Conventional razors allow heat to build up in the shaver head, often producing redness, burning and itching.

The Braun CoolTec is the world's first electric shaver with active cooling technology, featuring a Thermo Electric Cooling element between the shaving foils. No cooling gels or lotions are needed. The cooling element is surrounded by a trimmer and two SensoBlades for an extra smooth shave. The trimmer catches longer and more difficult hairs.

The CoolTec—endorsed by leading dermatologists—is 100 percent waterproof, so it's safe for use in the shower. Its alcohol-based Clean&Charge station charges, hygienically cleans and lubricates at the touch of a button. The cleaning fluid removes 99.999 percent of germs and is said to be 10 times more hygienic than just rinsing under running water.

The shaver comes with a Li-Ion battery that provides 45 minutes of shaving with a one-hour charge. Three different CoolTec models range in retail price from \$119.99 to \$199.99.



"Anyone who stops learning is old, whether at 20 or 80. Anyone who keeps learning stays young.
The greatest thing in life is to keep your mind young."

—HENRY FORD

Nozipp

NO MORE SNAGS

nozipp.com

There are many delights to camping, but organizing gear is not one of them. Inevitably, a leg of the butane burner snaps, a bear breaks into your supposedly bear-proof bag or, perhaps worst of all, your sleeping bag zipper snags and rips the sleeping bag fabric. The Nozipp Sleeping Bag gives campers one less cause for headaches.

Doing away with zippers altogether, the Nozipp Sleeping Bag instead uses a series of super-strong magnets to seal sleepers into a cozy cocoon. Nozipp Sleeping Bags have a comfortable temperature range of 15-65 degrees Fahrenheit, which exceeds the range of most zippered sleeping bags and camping quilts with similar specs. The bag has three modes: mummy mode, roomy mode and open mode. In mummy mode, the two flaps that close like a double door over the sleeper's torso are fastened snugly around the sleeper's body, creating a double layer of fabric that traps heat and blocks cold drafts. In roomy mode, the two flaps are fastened at their inner edges, joining together in a single layer of fabric better suited to warmer climates. In



the bag's third mode, open, the two flaps are left outstretched like open doors, exposing the sleeper's torso to the night air.

Nozipp Sleeping Bags are constructed from ripstop nylon and stuffed with 850+ water-resistant down. They cost \$419 and will begin shipping in August.



Stealth Socks

FUNCTIONAL AND COMFORTABLE

impeccable.maison

Want to know something kind of gross? Your feet have one of the highest concentrations of sweat on your body, which explains how shoes become so smelly and why, in stressful situations, your feet are among the first body parts to become drenched.

Stealth Socks stop sweat, odor and discomfort in their tracks. They perform better than both merino wool socks and cotton/poly socks in moisture wicking. Stealth Socks are five times more effective than normal socks in bacteria resistance.

The secret to the efficacy of these socks lies in their bacteriostatic silver ions and porous carbon nanoparticles. Bacteriostatic silver ions, which are instilled in the sock threads, prevent the buildup of odor-producing microbes. Meanwhile, porous carbon nanoparticles wick away moisture from the skin.

The socks are also outfitted with mesh ventilation zones that allow cool air to enter and hot air to leave the sock.

Stealth Socks are engineered for functionality as well as comfort. They're designed to support arch support, stretching and ankle cushioning. Due to the use of a wear-resistant fabric in the construction of the sock and the addition of polymer reinforcement to areas of high wear, Stealth Socks outlive most other socks on the market.

Stealth Socks are available in a variety of colors and patterns. Packages of two pairs in any color/appearance can be purchased on Kickstarter for \$32 and will begin shipping in August.



Clairi

PURIFY AIR – NATURALLY AND STYLISHLY

clairi.co

Every day we inhale harmful substances such as benzene, xylene, ammonia, trichloroethylene and formaldehyde. Increasingly, these substances are concentrated indoors as buildings become more air-tight in our effort to reduce energy consumption. In fact, the World Health Organization recently published a study identifying indoor pollution as one of humans' greatest health concerns.

Clairi is the clever solution to this growing problem. At first glance, it may appear to be just a sleek flowerpot. However, it uses a fan and a technology unit to funnel air directly to the roots of the plant within the pot. The roots then detoxify the air and release it back into the room, making it a natural air purifier. Clairi is equipped with temperature, humidity and indoor air quality sensors that send air quality information to your phone via Wi-Fi. Via the Clairi app, you can use this data to adjust and improve the quality of your air.

Clairi and its attractive wooden tripod are available on Kickstarter for \$235. The product will begin shipping in January 2017.

WayCap Refillable Coffee Capsules

SAVE MONEY AND THE ENVIRONMENT

compatible-capsules.com



A refillable coffee capsule for Nespresso machines, WayCap compatible and reusable capsules can be used with any coffee type on the market, saving up to 85 percent compared to the cost of a normal one-cup disposable pod. That comes to more than \$1,100 a year for a family of four, while providing the taste of a café-quality espresso.

Because the capsules can be used as many times as you want, you'll help protect the environment in numerous ways. You won't be contributing to the millions of disposable espresso pods in landfills. You won't be adding to the carbon footprint of packaging. You won't be contributing to the tons of carbon dioxide generated to produce and distribute capsules around the world.

You also get personal benefits. The capsules enable you to create your personal blend, whether you buy your favorite blend at your local market or ask a coffee merchant for help. Or choose from blends prepared and developed especially for WayCap compatible capsules.



The basic kit includes one WayCap capsule and one manual dispenser that allows you to refill your pods in less than 30 seconds. Pre-order for \$37 plus shipping.

Elephant Footprint

DOUG ENGELBART'S VISION
AND IMPACT TRANSCENDED
HIS COMPUTER MOUSE **BY REID CREAGER**

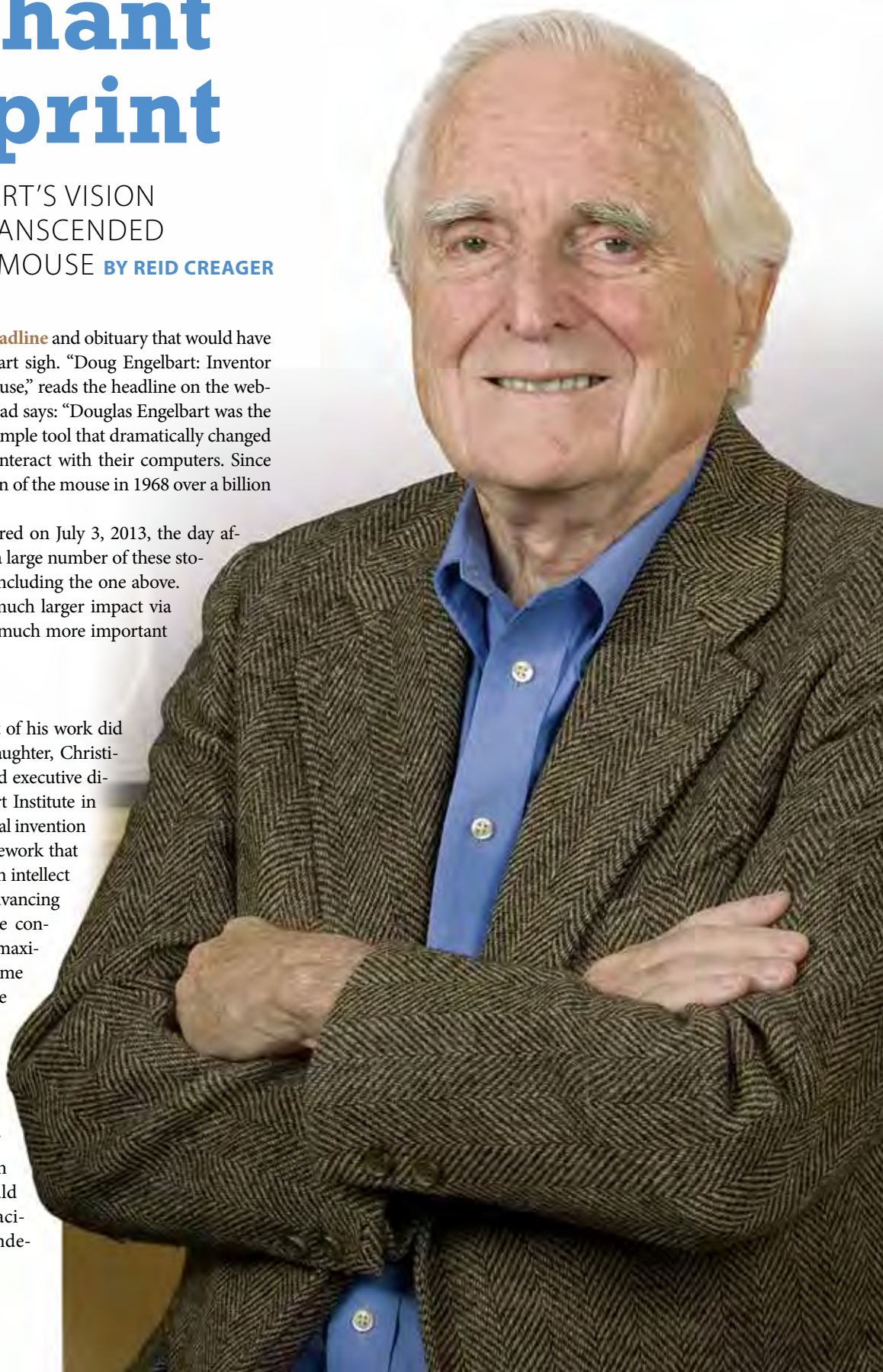
This is the kind of headline and obituary that would have made Doug Engelbart sigh. “Doug Engelbart: Inventor of the computer mouse,” reads the headline on the website The Independent. The lead says: “Douglas Engelbart was the inventor of the mouse, the simple tool that dramatically changed the way in which humans interact with their computers. Since the first public demonstration of the mouse in 1968 over a billion have been sold worldwide.”

Many similar obits appeared on July 3, 2013, the day after he died at 88. Certainly, a large number of these stories were factually correct, including the one above. But Engelbart strove for a much larger impact via an invention he considered much more important for humankind.

Beyond the Gadgets

“I would say that 90 percent of his work did not get fulfilled,” says his daughter, Christina Engelbart, co-founder and executive director of the Doug Engelbart Institute in Menlo Park, Calif. His seminal invention was a 1962 conceptual framework that called for augmenting human intellect to keep pace with rapidly advancing technology, anchored by the concept of a “Creative IQ” to maximize this collaboration. Some have suggested this could be the most important paper in computer history.

At the time of his passing, Engelbart was frustrated by humans’ failure to prioritize the power of the Creative IQ. His vision was that technology would work with our infinite capacities as humans, not work independently of them.



**Doug Engelbart
received a National
Medal of Technology
& Innovation award
from President
Clinton in 2000.**

Engelbart foresaw this imperative in the 1950s, when television was still struggling to become a mass media. “Before Moore’s Law (the fact that in the history of computing hardware, the number of transistors in a dense integrated circuit has doubled about every two years), there was Engelbart’s Law,” Christina says. “He calculated the potential miniaturization of technology ... that technology would become smaller and smaller and more affordable. He calculated this in the late 1950s and gave a talk on it in 1960.

“He had ‘therefores’ attached to it: Therefore, technology is going to offer more capability than we can even imagine. Therefore, it’s going to permeate every aspect of society. It’s going to have a bigger impact on society than anything we’ve ever seen, including the printing press, fire, agriculture—all those things combined—and in a more compressed timeframe. When he (fore) saw that, he realized that if you want to make a dent and a difference in the world, the most important thing you can work on would be making us much more effective at how we’re tackling challenging issues.”

In short, she says, those most effective means involve harnessing the ultimate power of our Collective IQ so that it can keep pace with our exploding technological gains. She says this has failed to materialize.

“If you have some technology that can really augment our intellect and help us be more intelligent together, that will help catapult you into a much more dramatically capable (state). That’s not going to happen just by injecting technology. It’s going to happen by understanding how to harness it and understanding what you want to be able to do—what does it mean to be more capable?—than what kind of technology you need. That is the research agenda he laid out in 1962.”

Seeking a way to find better ways to point and click on a display screen, Doug Engelbart invented the computer mouse in 1963. The casing, made in a shop at Stanford Research Institute, was carved out of wood. There was room for only one button.

‘He Was Dad’

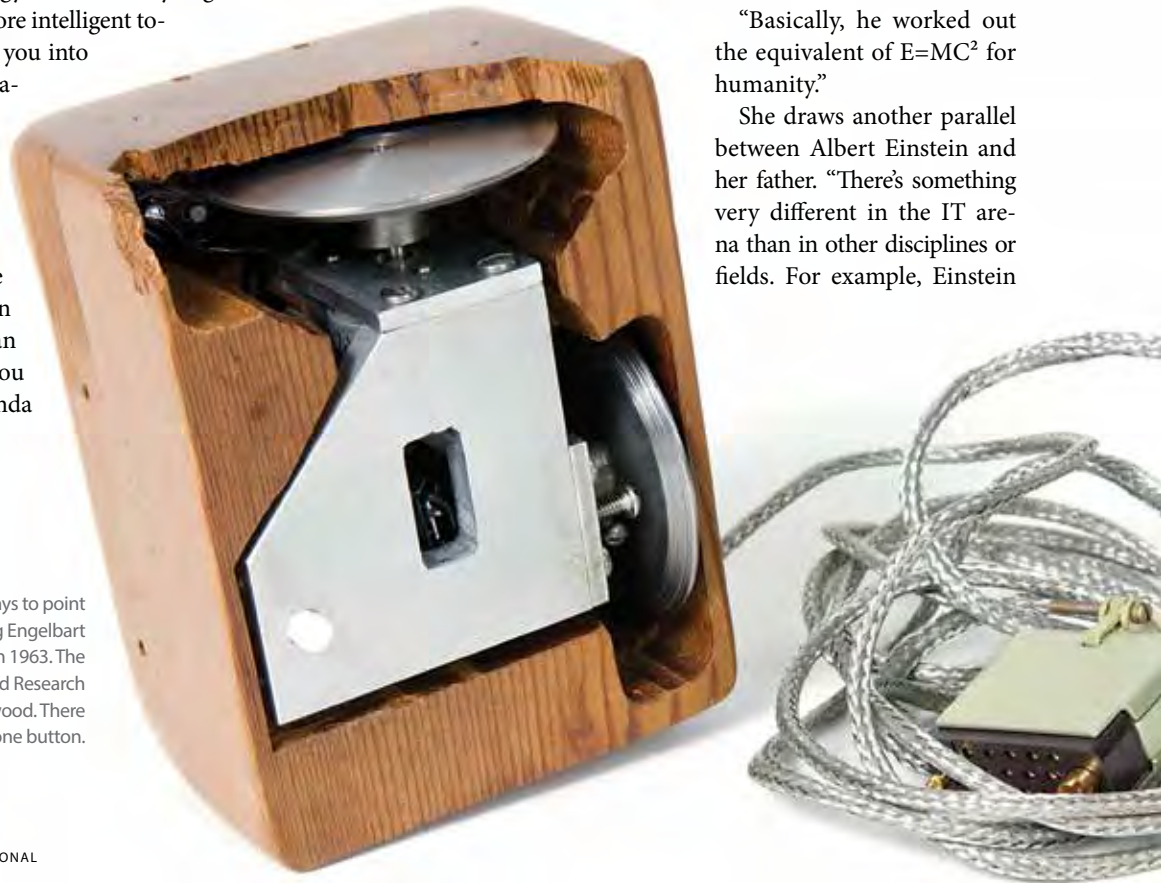
Born in Portland, Ore., Douglas Carl Engelbart is often described as gentle, funny, charismatic and thoughtful. Christina remembers her early years with her father: “He was Dad. And he was anonymous. He was the outdoorsman dad; he loved to play with kids and make up games and go bike riding and canoeing and all that. He took us hiking. There was also an absent-minded professor side to him.”

Christina says that as the Internet took a strong foothold in the mid- to late 1990s and the mouse became virtually omnipresent in American homes, the tech community developed a greater appreciation for her father’s work. By the time he died he had dozens of awards, including a National Medal of Technology & Innovation award from President Clinton in 2000 and a 2002 American Innovation Award that previously honored some of the nation’s greatest inventors.

Similarly, Christina says, “It took me several years of working with him before I really understood deeply how significant his vision was. It wasn’t just a vision but a strategy to raise the Collective IQ in society as a grand challenge. In my mind, after studying that and working with him and understanding his intents and how he thought it through, it has the same significance as the theory of relativity—only it’s applied to human transformation and innovation.

“Basically, he worked out the equivalent of $E=MC^2$ for humanity.”

She draws another parallel between Albert Einstein and her father. “There’s something very different in the IT arena than in other disciplines or fields. For example, Einstein





Doug Engelbart works at his first personal display workstation in his office in 1974. Recognition for his accomplishments surged in the late 1990s as the computer mouse became ubiquitous in U.S. homes and offices.

couldn't get access to a lab to do his research. He couldn't get funding to do his initial research. He had to do it all in secret. He and his wife had to sneak into a lab at night and use the facility to test out his theories. Eventually, the field of physics recognized that he really had something powerful there because there were enough people trained in physics that if they sat down and worked it through, they could see the importance of what he was doing. ...

"My father did the same level of work, and all people really focused on was the instrumentation he used to test his ideas. If you look at the instrumentation Einstein used to test his ideas, you would say, 'We don't use that instrumentation anymore.' That doesn't mean the theory is wrong. He did all of his work with very crude instrumentation. It's incredible. My father did all of his work with very crude technology. That's all that was available to test his theories. So people focused on the technology but not the theory of relativity for mankind.

"In physics, people did recognize the larger picture and not focus on the technology. So I think there's something in the IT arena that causes people to focus on the technology exclusively."

Her father's vision is all the more impressive, she says, because "Dad's vision does not become outdated. Once you make a breakthrough like that, that theoretical work ... until somebody comes along with something better or more proven, nobody's even touched that in my father's case. Many years after Einstein's theory, they were finally able to test and confirm the wave theory. Nobody's bothered to test and confirm my father's work."

"Basically, he worked out the equivalent of $E=MC^2$ for humanity."

— CHRISTINA ENGELBART,
ON HER FATHER,
DOUG ENGELBART

The Mouse As Bait

Though Doug Engelbart hated to be pigeonholed as the inventor of the computer mouse, the attention it brought still has some function. "It's pretty much the hook to get somebody reading about him," Christina says.

He conceived the idea in 1961 while at a conference session on computer graphics: a device that used one wheel turning vertically and the other horizontally to help position a cursor on a computer screen. The first prototype, built in 1964, was wooden and square before being refined. With a goal of speed and accuracy, Engelbart and his team tested several pointing devices in 1965 that included a knee ap-

paratus and the mouse, both created in-house; a foot pedal device; a head-mounted device; a joy stick; and a light pen.

"The mouse was by far the faster, and more precise," Christina says. "Fifty years later, there's no better pointing device. Yes, you can walk into a kiosk and touch the screen, but in terms of speed and precision, there's nothing better. So it's not going to be replaced until those qualities are replaced.

"He was surprised that nothing's been invented to replace it after all these years, because nobody's looking at that same question that he was looking at: What would be more precise, more accurate and faster? ... But that process isn't not entertaining, for one thing. There's not a thrust of,

'How can we become way more effective and increase our collective intelligence?' That is not a primary focus in information technology."

Doug Engelbart also played a key role in inventing or refining other key aspects of personal computers and the Internet, such as word processing, bitmapped computer displays and navigating online using links.

Mandatory Mission

Christina is enthusiastic about furthering her father's mission. But just like her father, she laments what we've missed by underemphasizing humans' potential to lift technology to a more noble purpose in the face of so many world problems.

"If you can take a printed page and make it appear on a screen—that was big stuff for personal computers," she says. "But that has nothing to do with augmenting human intelligence. It's knowledge trapped on paper in a screen.

"Even when writing a story that uses supporting or background information from websites, 'You're connecting the dots in a way that are not necessarily connected on the website. You're following your own path that's emerging as you think. If computers

“There’s nothing special about our society that we’re going to keep it from collapsing unless we get way smarter than the conditions that we will be facing. The mouse is not going to fix it.”

— CHRISTINA ENGELBART

could work more like how someone thinks and how that works... but computers don’t do that. Computers bring you files that you can scroll through.”

She says “We have 30 years of lost opportunity on being able to look at things in different ways,” and counting.

“Societies have collapsed ever since the beginning of time. There’s nothing special about our society that we’re going to keep it from collapsing unless we get way smarter than the conditions that we will be facing. The mouse is not going to fix it. The theory is how to work together to not only solve the problems but how to solve the problem of getting better at solving problems.” 🐭

The Key: Collective IQ

DOUG ENGELBART’S PRIMARY MISSION, IN HIS WORDS AS THEY APPEAR ON THE ENGELBART INSTITUTE WEBSITE:

“Collective IQ is a special set of capabilities, built upon our innate human capabilities, such as sensory, perceptual, cognitive, motor, etc. Any significant capability is achieved by augmenting these basic human capabilities with training, enculturation, etc. in the operational use of:

(a) coordinated systems of tools and artifacts (i.e. the Tool System); and

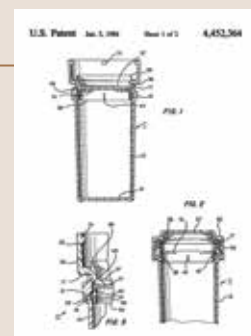
(b) vocabulary, conventions, roles, organizational structures, values, paradigms, rules of conduct, methods of cooperation, education, etc. (i.e. the Human System). Together, the Tool and Human Systems comprise the Augmentation System.

To maximize our Collective IQ, the key is to accelerate the natural co-evolution of our Tool and Human Systems toward ever-more powerful Augmentation Systems enabling increasingly effective Collective IQ. I call this strategic approach a bootstrapping strategy, an important aspect of which is that the teams that are accelerating the co-evolution use what they are developing in support of their own collective work. They are thus simultaneously improving Collective IQ capability for themselves, and for their end customers, thereby continuously enhancing their own ability to further improve the Collective IQ capability (improving how they improve).”

INVENTOR ARCHIVES: June

June 5, 1984

Scientist **Ronald Kay** was issued a patent for his safety cap on a medicine bottle. Despite the number of fatalities the invention has prevented, medications are still the leading cause of children’s accidental poisoning deaths.



June 6, 1887

The Coca-Cola label, one of the most iconic identifiers in American history, was trademark registered by **J.S. Pemberton**. He had invented Coca-Cola a year earlier, concocting the formula in a three-legged brass kettle in his backyard. The name was suggested by Pemberton’s bookkeeper Frank Robinson, who first scripted the words.



June 11, 1895

Charles Duryea patented a gasoline-powered automobile. Indiana inventor Elwood Haynes is generally credited with building the first gas-powered car, but Duryea and his brother Frank claimed theirs was completed first. The Duryeas’ car had a buggy frame, four metal tires and a one-cylinder, four-horsepower engine.



June 19, 1900

Physicist **Michael Pupin** was granted a patent for long-distance telephony. Pupin, who taught mathematical physics at Columbia and was born in what is now Kovacica, Serbia, greatly extended the range of long-distance communication by placing loaded coils of wire at specific intervals along the transmitting wire.



June 22, 1873

Samuel Clemens, also known as Mark Twain, patented several inventions. On this date he patented his most commercially successful innovation, Mark Twain’s Patent Scrapbook, which had dry adhesive on its pages so users could simply moisten pictures to attach to the pages. He also patented an elastic strap for clothing, as well as a memory/trivia game. Clemens financed others’ inventions but lost so much money on them that he had to declare bankruptcy.



Beware PPAs Done on the Fly

SLOPPY APPLICATIONS CAN PROVE COSTLY

BY JACK LANDER

The PPA (provisional patent application) is attractive to inventors for three reasons. It's less expensive than the non-provisional utility patent application; it doesn't require us to reveal prior art that may interfere with our claims and argue our case for how our invention's features are different; and we can make broad, comforting, informal claims for novelty that will in most cases be narrowed as formal claims in our eventual utility patent application.

But the PPA can invite looseness in our approach to patent protection. Just because we can procrastinate about the eventual essential refinements doesn't mean that we should do a sloppy job of searching and writing. I see a lot of PPAs based on inadequate patent searches these days. "Let's just get the application out there, and we'll worry about the details later," seems to be the attitude of the applicant. Unfortunately, I find this in some of the applications written by professionals as well as those written by inventors.

The point is that a quick and dirty provisional patent application is going to come back and bite us in at least one of these ways:

Negotiations: If you intend to license your patent, you have only two choices for timing: Wait until your patent issues, or try for a deal based on the hopes implied in your application. The most secure position is that of having the issued utility patent in your hand, of course. But this may mean waiting two years or more for the issuance. In many cases, the invention is in a field that is advancing rapidly, and the patent's value is declining with time. Also, another invention may come on the scene that satisfies the problem or opportunity that your invention satisfies.

Attempting to license your application means that your prospective licensee will have to obtain his own search and patentability opinion in order to assess the potential of your PPA. No doubt such search and opinion will be in greater depth than yours if you haven't invested in an in-depth search and opinion at the outset. And if the content, writing and physical appearance of your PPA suggests "quick and dirty," your bargaining position is greatly disadvantaged. Even if you succeed in licensing, a "provisional application" will result in a "provisional license." In other words, if your essential claims—those that provide a proprietary advantage to your licensee—are shot down by the United States Patent and Trademark Office, your ability to gain royalties may be shot down all the way to zero.

Expense: If your PPA was not based on an in-depth search, you'll need one before filing your utility patent application. That may cost more than a thousand dollars. Even when a competent in-depth search is made, we run the risk of rejection based on failing the law of "non-obviousness." Patent attorney Gene Quinn, writing in the December issue of *Inventors Digest*, said it this way: "The issue of obviousness is where the rubber meets the road. ... There is no point in wasting good money chasing a patent that will never issue. Application of the law of obviousness seems to suggest that, when in doubt, an invention will be considered obvious."

A patent search is, in Quinn's words, "merely a threshold inquiry." We inventors tend to be overly optimistic when we review a professional patentability opinion, or form our own opinions based on our own searches: "There's nothing at all out there like my invention." (I have heard or read that hundreds of times in the past 20 years.) That may be the case, but the patent examiner has the obligation to review patents that at least serve a similar function to yours and pick out features from those patents which, when combined, may add up to your invention.

Your applications must attempt to prove the novelty and the non-obviousness of your invention. The patent search often discloses inventions that are exactly like yours, or nearly so. The professionally written utility patent application argues that all of the essential components of your invention are not found in the prior art, and thereby "proves" that you qualify for the patent.

However, the final judgment rests with the patent examiner.





Psychological damage: If hopes of having our utility patents issued are dashed due to quick and dirty work done in the initial stages of filing our PPA, the personal hurt and anger may have greater impact than the additional expense or the failure of provisional negotiations.

In summary, approach the preparation and filing of your PPA with great care. Get a competent search, just as though you were filing your utility patent application. Don't use wishful thinking. A search of this type may cost a thousand dollars or even a bit more. A \$250 search is fine as a way to disqualify your invention, but if such a search is encouraging and used as the basis for your follow-on utility patent application, you're risking the big bucks required to prepare and file it.

We don't expect a PPA to have the elegance of a utility patent application, but neither should it look homemade. It should have at least a few of the features of the utility application, such as appropriate headings. Discuss this point ahead of time with the professional who will prepare it.

Remember, your PPA may end up on the desk of your prospective licensee's director of marketing. You have only one chance to make a good first impression. 📁

Jack Lander, a near legend in the inventing community, has been writing for *Inventors Digest* for 19 years. His latest book is *Marketing Your Invention—A Complete Guide to Licensing, Producing and Selling Your Invention*. You can reach him at jack@inventor-mentor.com.





Marketing Missteps

AVOID THESE COMMON BLUNDERS

BY JOHN G. RAU

When starting a business and commercializing your invention into a new product or service, be careful to avoid marketing blunders and related mistakes. These could occur in how you market yourself and your business, as well as how you choose to name and advertise your products or services.

The potential for marketing blunders occurs very early in the start-up process. One mistake is not filing a Doing Business As (DBA) or Fictitious Business Name Statement with the county in which you plan to operate, so you can avoid duplication of business names in the county. If you intend to incorporate your business, the state commissioner of corporations may not allow you to use the same name as some other company already registered with the state. Your business name, product names and related identifiers or logos may already be restricted for use by trademark, service mark or even copyright constraints. You should check this with the U.S. Patent and Trademark Office and the U.S. Copyright Office for any such federal restrictions.

Checking with the state-equivalent agencies enables you to ascertain whether there are any state-level restrictions on the use of names or business identifiers you have selected. The “blunder” you’re trying to avoid here is being successful and making lots of money from your new invention—only to find out you have been selling a product or service with a name owned by someone else. That other person or business could easily sue you and demand some or all of the profits. Worse yet, if your product infringes on someone’s patent, you’ve got a real legal problem. These are blunders that you can generally avoid early in the start-up process through working with your business attorney.

Planning and Strategy

When contemplating creative ways to promote your business, carefully think through your plans to avoid marketing blunders that might do more harm than good. A quick search of the Internet reveals multiple articles regarding marketing no-no’s. Here’s a “non-attributable” summary of the “best-of-the-best” such examples, starting with planning and strategy:

- **Winging it without proper planning:** Set realistic goals for your business, assess how you will accomplish those goals, then launch a marketing plan specifically designed to reach them.
- **Changing plans too often:** Just because you’re tired of your marketing plan doesn’t mean it’s not working. Too many businesses make changes because they think they have to. Never stop using something that’s still working. Try to use a slow, steady, gradual growth strategy because it takes time for marketing efforts to ramp up and gain traction.
- **“Hunch” strategies:** The best way to develop a successful and profitable marketing strategy is to use the knowledge, experience and skills of those individuals who have already discovered the marketing approaches that work and the ones that don’t.
- **Starting too late:** Time your marketing campaigns to coincide with new products, new services, seasonal sales or an upcoming event to attract business. Seasonal marketing efforts should start well in advance of any holiday.
- **Not sticking to the strategy:** When you develop a plan, you set the direction of your marketing activities so you can focus your efforts. Once you decide on your strategy, stay focused on executing it.

Common Mistakes

Established businesses, including those that have been around for many years, often fall prey to these blunders:

- **Lack of focus:** Don't market to an audience that's too broad, rather than directing your message to a targeted audience. Clearly define your target market and narrow the groups of people your market is trying to reach.
- **Blowing the budget:** Don't try a one-shot marketing gamble. If the first try fails—and it usually does—there's no money left for a subsequent effort.
- **Cutting marketing:** Even when the economy is slow, marketing keeps you visible and helps generate leads, builds credibility and ensures that your prospects know that you are alive and well. Reduced spending and ensuring your marketing dollar is spent wisely is important, but cutting marketing is the biggest mistake small businesses can make in tough economic times.
- **Inconsistent message:** There are many marketing traps here. These include not continuing your ads over weeks and months to ensure consistent, long-term results; presenting mixed and confusing messages that fail to tie together different media; having your message lost in a crowd because it doesn't speak directly to something the prospect really cares about; creating boring advertising material that doesn't seek a call to action; and creating marketing messages that are contrived, confusing, too subtle or too long that can easily miss your target market entirely.
- **Misuse of and failure to maximize social media:** Social media has become the top dog in the overall marketing arena. Use your website to give visitors all of the information they need to understand and buy your product or service. In order to maximize visibility, make sure your website can be found on search engines via Search Engine Optimization.
- **Lack of or inconsistent branding:** Branding is an essential part of marketing. Launching an advertising campaign before identity has been established gives the impression that you're not sure about your product or service. Incorporate your logo, trademarks, service marks and any other identifiers on all of your literature so people will recognize who you are. Part of that branding is a unique selling proposition, the one statement that singles you out from the competition. This compels customers to try your products and services.
- **No measuring practices:** You should establish metrics to enable you to assess what works, how well, and what doesn't.
- **Shunning specialists:** Hire experts to help with the marketing and promotion of your business and new invention, enabling you to focus on running the business. Don't rely on

friends and family unless they have a track record of successful business experience. Add experts and specialists with the proper credentials.

- **Lack of market research and testing:** Conduct trial runs with selected customers or focus groups to get their reactions before launching your marketing campaign.
- **Not maximizing customer relationships:** Don't ignore your existing customer base at the expense of trying to capture new customers. Remember that repeat customers can drum up new business for you. Make sure you really know what your potential customers need and want. And don't give up. Effective marketers know that persistence and repetition are vital for success.
- **Ignoring competitors' successes:** When a business owner loses market share to a competitor, there is a very specific reason for it. The two logical answers: Either the competitor is doing something right or you are doing something wrong that's helping the competition.

"The one unforgivable mistake you should never make is to repeat a previous mistake."

— MARTIN ZWILLING

- **Overplaying your strengths:** The magnificent company you have, how many awards you have won and how you have grown over the last few years should be supportive information, not your primary marketing message. Your customers don't care who you are or how great your company is. They only want to know how working with you is going to fulfill a need or a desire. Customers only want to know, "What's in it for me?"

There are a lot of mistakes to be made, so don't expect to not make any. In his Sept. 28, 2011 article in *Entrepreneur*, Martin Zwilling wrote: "The reality is that making mistakes is part of every successful growth effort. ... The one unforgivable mistake you should never make is to repeat a previous mistake. In the end, ask yourself this question: Is it better to try and fail, or never have tried at all? To grow in the business world, never trying is not an option." 📖

John G. Rau, president/CEO of Ultra-Research Inc., has more than 25 years experience conducting market research for ideas, inventions and other forms of intellectual property. He can be reached at (714) 281-0150 or ultraresch@cs.com.





Golden Retrieving

HOMEWORK LED TO AUTOMATED IFETCH MACHINE

BY JEREMY LOSAW

Grant Hamill figured out a way to finish his homework while starting something even more important. When the high-schooler was trying to work on his studies at his kitchen table in Austin, Texas, several years ago, his pet poodle, Prancer, kept dropping a ball at his feet to play fetch. Soon Grant's thoughts wandered from his books to how he could keep his dog active and occupied.

"What if we made something that could throw the ball for Prancer so I can finish my homework?" he remembers asking. His grandfather, Denny Hamill, began searching to see whether there was any such device on the market.

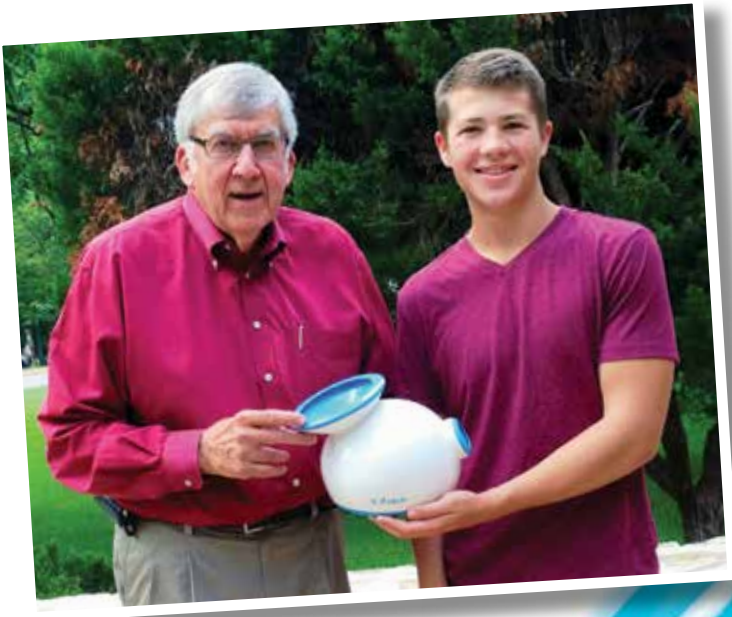
"We looked on the Internet for a solution," he recalled. "There were a couple of prototypes that were big and funny looking ... but no one had really developed a product. So we decided to try to build one."

The result was the iFetch, an automated fetching machine that a dog can use by itself. It's battery powered and has an opening at the top where the dog drops a specially designed tennis ball. The ball is guided down a chute, and spinning wheels launch the ball out of an opening at the bottom. The dog can fetch the ball and return to the iFetch indefinitely without the need for a human to throw the ball.

More Homework

Building the iFetch was an ongoing homework assignment for both grandfather and grandson, the latter currently finishing his degree at Occidental College in Los Angeles. Grant had a set of toy cars that had an accelerator mechanism to speed up the cars and shoot them around a track. They disassembled the mechanism, spaced the drive wheels further apart, and

PHOTOS COURTESY OF IFETCH



Denny Hamill and his grandson Grant Hamill show off the iFetch, an automated fetching machine.

OPPOSITE PAGE: The iFetch Too uses bigger tennis balls and is taller for bigger dogs.

RIGHT: The iFetch is designed to be used with miniature tennis balls that are 40mm or 1.5 inches in diameter, the same size as most mini tennis balls in pet stores.

mounted them at an angle to shoot a tennis ball into the air. They added a hopper to feed balls to the accelerator, and they had their first prototype. Because Prancer was the original inspiration for the device, they let him have the first test. He loved it, and the team continued developing the idea.

Denny had experience developing products from 30-plus years at 3M, accumulating a portfolio of patents along the way. Shortly after creating their first prototype, he went to his patent attorney to start the application. They did a provisional filing to start and later converted it to a full-utility patent that was recently issued. They have also filed design patents to cover the unique orbital look of the product, as well as filing patents in Europe and Asia to protect the idea worldwide. Denny feels that the patents have helped in the product's success but admits that's hard to measure.

Despite the elder Hamill's industry experience, the team still needed help to get the product designed. Denny had served as a mentor for small businesses and start-ups in the Austin area, and it wasn't long before he hired a design firm to create an iconic shape for the product. The design team took the idea

"People were not used to spending \$100 for a dog toy. ... We broke the ice."

— DENNY HAMILL





The iFetch comes in three varieties designed for different kinds of dogs.

as far as it could before referring the iFetch team to an engineering group in the area that could help with the design for manufacture. After a few months of design work, prototypes were made out of 3D printed parts and tested with dogs to dial in the design and ensure it was reliable and cost effective to manufacture.

After all of the design work, they had a great product—but there were still concerns about marketability. Due to the size of the device and the internal components, the price of the iFetch was going to have to surpass \$100. Most dog toys are inexpensive, and there was not a comparably priced product in the space as a reference point to be confident that the market would accept a more premium product.

“People were not used to spending \$100 for a dog toy. ... We broke the ice,” Denny said. “The pet industry has changed. Customers are changing. They are treating their dogs more like children.” Launched on Kickstarter in 2013, iFetch was successfully funded with \$88,221 and 1,271 backers.

The Kickstarter campaign gave the iFetch team the validity in the marketplace to kick off the manufacturing. The engineering group helped the iFetch team find a factory. Due to the size of the injection-molded parts and the electronics inside the unit, the most cost-effective option was to have it made overseas. After the normal rounds of sampling and slight post-tooling tweaks, there have been no major issues with the production.

The initial 5,000 units that were produced were soon sold out. The iFetch has been increasing sales and garnering industry awards, including Best New Product and Best in Show at the 2013 SuperZoo trade show.

Growing the Market

After feedback from users, it became clear that the original iFetch was not ideal for large dogs. Denny went back to his design and engineering firms and created a new product called the iFetch Too. The larger unit, which uses bigger tennis balls and is taller for bigger dogs, was launched on Kickstarter in 2015 and raised \$117,192.

“It’s everything dogs love about the original iFetch,” Grant said, “but in a bigger package with bigger balls for bigger dogs.”

This was followed by a third product, the iFetch Frenzy—a gravity-driven auto fetcher that releases balls out of one of three slots in the bottom of the unit. The Frenzy won Best in Show at the 2016 SuperZoo show.

The original iFetch, for small to mid-size dogs, is available for \$115; Fetch Too sells for \$199. The iFetch Frenzy lists for \$69.95.

Meanwhile, more family members are involved in the success of iFetch products. Grant, who experienced the success of an invention along with a firsthand education in product development, has worked on the brand during summers between semesters at college. His mom, Debbie, is now a full-time member of the team, so they get to spend a lot of time together working on the product and going to shows. The team is working on some new and innovative dog products to expand their product line in coming years. 🐾

Jeremy Losaw is a freelance writer and engineering manager for Enventys. He was the 1994 Searles Middle School Geography Bee Champion. He blogs at blog.edisonnation.com/category/prototyping/.



To Store and Protect

NAVY VETERAN'S SHADOWBAG
ORGANIZES UNIFORM ACCESSORIES

BY EDITH G. TOLCHIN



Jim Gannon's ShadowBag helps military personnel store and protect their uniform accessory items.

PHOTOS COURTESY OF JIM GANNON

When Jim Gannon found himself out of uniform among his colleagues, embarrassment became the mother of invention. Although I've facilitated the manufacture of the ShadowBag for many years, this is my first time featuring the story of how the retired commander in the U.S. Navy Reserve developed the product for people in the military and other service careers, including police and firefighters.

Edith G. Tolchin: What exactly is a ShadowBag? Tell us about the two different styles.

Jim Gannon: The ShadowBag line of products are organizer bags designed to help military personnel store and protect their uniform accessory items. All the different services—including Army, Navy, Air Force, and Marines and even civil service workers like police officers and firefighters—have a wide variety of uniforms, from working uniforms to ceremonial dress uniforms. Each uniform has different requirements for medals, ribbons, rank insignia and such. Add this up and there are a lot of different items and materials to keep track of—and some of these items are quite

expensive. So I came up with an organizer to securely store and protect these items, with a quick and easy way to look over your items and make sure you had all the items you needed.

We currently have two different styles: the ShadowBag Ultimate and ShadowBag Mini. These are designed to serve the different needs of the service folks. We started with the Ultimate and then developed a smaller bag (the Mini) at the request of our largest client, the Navy Exchange Services Command.

EGT: Tell us about your background and how this led to your invention.

JG: Well, that's a bit of an embarrassing story. I am a retired commander in the United States Navy Reserve. I spent five years serving on active duty and another 16 serving in the Navy Reserve, serving from 1985 to 2007 overall out of Norfolk, Va. I am a surface warfare officer by trade, meaning my training is in the Navy's surface combatant fleet. However, I served in a number of different commands in addition to Navy warships, from joint task force commands to emergency preparedness programs that assist FEMA (the Federal Emergency Management Agency) during natural disasters.

The Navy will send you to different schools to learn the specifics of your responsibilities. One of the traditions of the schools that you attend is to take a class photo. These class photos are usually taken while wearing a service dress uniform, and typically during class you wear a working uniform. Again, remember each of these uniforms has different insignia requirements. Prior to my invention of the ShadowBag, I kept these uniform items in a variety of places—namely in a shoebox, and some in a top sock drawer. So I took off for the training and left behind some of my key uniform dress ribbons. When it came around for the time of the class photo, I realized I was missing these items! There is nothing more embarrassing in the military than to be out of uniform amongst your colleagues. You might as well walk in wearing a dunce hat!

After that experience, I vowed that will never happen to me again. And I was going to figure out a way so I could keep all my items together, in one place, and make them easy to see.

EGT: Why is ShadowBag different than any other military accessories storage items?

JG: After the class photo incident, I began to scour the uniform shops and websites to find a storage bag to help me organize my uniform items. To my surprise, there really wasn't anything out there to fit my needs. When people see it they immediately say, "I need that." Some of the features we wanted to include were to have something that was small enough to be ready to travel, and we wanted to be able to easily check that all your stuff was there. We added a multitude of specialty compartments for the rarely used items that are properly sized for a custom fit.



“There is nothing more embarrassing in the military than to be out of uniform amongst your colleagues.”

— JIM GANNON

EGT: How did you get started in developing the product? Did you create a prototype, or have one made for you?

JG: We kind of backed into developing this product for market almost by accident, and really because of the encouragement by some of my shipmates. My sewing was crude, but it was the general layout of what we have today. I made custom-sized pockets to fit my gear and used a clear vinyl outer lining so I could see what was in the bag. I attached all this to a hanger and added some pockets.

I had most of my stuff I needed all in one place. It rolled up nicely and fit into a duffel bag or suitcase. I was happy and it almost ended there, until one day at work when we had a formal ceremony after working hours that required our service dress uniform. We all wore our working uniforms for the day and planned on changing into the dress uniform for the ceremony. As I was assembling my dress uniform, I pulled out my crude ShadowBag. Some of my shipmates saw me unfold it and saw all the uniform items neatly displayed and organized. Their excitement about my crude prototype gave me the motivation to pursue bringing this product to market in 2007.

EGT: Is ShadowBag Industries your own company? Have you thought of licensing out this invention?

JG: ShadowBag Industries is my own company in Fleming Island, Fla., where I live. I have an investment partner. We are pursuing other companies to include our product in their offerings. Our target market, as you might suspect, is military personnel and their families. Gaining access to the government markets and military exchanges can be difficult for small companies just due to the amount of requirements for vendor qualifications, not to mention getting the attention of the buyers. By working with a supplier already qualified and doing business with the government, it can help us expand our market and ultimately expand our product line.

EGT: Once you had your prototype, how did you manufacture this product?

JG: Once we decided to commercialize it, we needed to make a more workable model. We searched and found several garment prototype developers. This was a big help. It was a bit costly, but the expertise they provided in the development of the bag was

fantastic: things like proper sizing to fit standard material bolts and manufacturing techniques, all aimed at making a quality product with an optimized cost. It is this type of expertise that educated me in an industry I was not familiar with, and we ultimately developed a very professional prototype.

The other aspect of working with a prototype developer is gaining insight into bulk manufacturing of the product. It was through our prototype designer that I learned about sourcing agents to help gain access to the overseas manufacturing market.

EGT: Tell me about working with Asian factories.

JG: We looked at many different manufacturing avenues to get our products made. Based on our market analysis, we chose to work with the Asian factories. This was mainly done to allow us to bring a high-quality product at a competitive cost that would be attractive for the members of the military services. Even with the import duties and transportation, the other manufacturing options just did not allow us to enter the market at the price point needed to sell significant quantities of our product. Although our product was very unique and fit a specific need, we wanted it available to all service members at a reasonable cost.

So definitely, working with Asian factories was a big learning experience...as well as a leap of faith. You hear so much negativity in the press regarding Asian factories that I was a little hesitant. Having an experienced sourcing agent helped. There are a lot of reputable manufacturers and quality control services available to help build your confidence in the process. My sourcing agent, EGT Global Trading, is like having an Asian product developer/marketer on our staff. This assures our products are manufactured at a reputable and reliable factory.

EGT: Have you encountered any difficulties with manufacturing, importing, logistics, or fulfilling your orders?

JG: Of course! Probably the biggest issue is getting timely orders through the Asian factories. I hate to backorder any product. I want timely and rapid responses to my customers' orders. So understanding my market cycles and matching them up with product manufacturing is a big issue. The entire process includes pre-production samples to check compliance of design, followed up with mass-production samples, and then, quality inspections. All this adds time delays to product manufacturing. So you end up tying up a lot of capital to ensure you stay ahead on inventory. Then there are transportation and Customs that add delays as well. Now I understand the term "a slow boat from China." (Laughs.)

EGT: How did you come up with the name for the product?

JG: Most military members are familiar with a Shadow Box. This is a traditional gift one typically gets upon retirement from successful years of service at the many duty stations served. So a "Military Shadow Box" usually shows all the medals, awards, and duty stations at which one has served. It is typically a wood box encased in glass, so as one looks at the Shadow Box, he or she

can quickly see all the recognition that sums up a career of service. This was the inspiration for the ShadowBag name—only it's workable and flexible!

EGT: According to your website, "Every year we donate over one hundred bags for U.S. Navy Petty Officer and Chief Petty Officer promotion events." Is this a charity function?

JG: Yes, it is a promotional and celebratory event for the Navy Exchange. Every year, the Navy Exchanges worldwide have these in-store raffles to celebrate the sailors who have been recently promoted to Petty Officers or Chief Petty Officers. These are big milestones in the careers of these individuals. Part of the change in rank is the need for new and different style uniforms. The Navy Exchange stores have raffles at each of their locations that include uniforms, shoes, insignias, and one of our ShadowBags.

Even more prestigious than the above is that every year one of our ShadowBag Ultimates is included as an award to only four individuals selected as the U.S. Navy's Sailor of the Year. This is a yearlong competition to recognize the Navy's top enlisted personnel. This year's event was to be held in Washington, D.C., the week of May 8-13, and our bag was part of that ceremony! How cool is that?

EGT: Do you have plans to add to your product line?

JG: Yes. We have ideas for other storage bags designed for our military markets and have plans on the drawing board to expand into the sports market as well.

EGT: Do you have any words of wisdom or encouragement for novice inventors?

JG: Wow, yes, of course: patience and perseverance! You have to believe in your product; there will be setbacks along the way, late nights, and learning about things you never thought you'd need to encounter. There's the licensing, taxes, vendor qualifications, patent attorneys, and so on. As I said before, you need to believe in your product or service, develop a realistic plan, then set aside some money and time and go for it! Our big break with the Navy Exchange came unexpectedly. We tried and tried to sell them our product with little success, and then someone saw our product at a kiosk we rented during the holidays. That person loved our product so much and said it needed to be in the Exchange and not in a kiosk. Before you knew it, they couldn't get our product in their store fast enough. ☺

For more information, visit www.shadowbag.com.

Edie Tolchin has contributed to *Inventors Digest* since 2000. She is the author of *Secrets of Successful Inventing* and owner of EGT Global Trading, which for more than 25 years has helped inventors with product safety issues, sourcing and China manufacturing. Contact Edie at egt@egtglobaltrading.com.



BY REID CREAGER

PHOTOS BY ANNALIESE WINNAIL

HOLDING PATTERN

PAD FOR BABY CAR SEAT HANDLE IS A RELIEF FOR MOMS

Lily Winnail homeschools her two daughters and son because “we like to go places and see things,” and because she’s not afraid to be afraid. Although she says one daughter is already testing at MBA level, the decision to homeschool was rife with apprehension: “I was so scared. I was very hard on myself, and I pushed them really hard at the beginning.”

In April 2007, three months after giving birth to her son, Winnail’s heart was pounding as she walked into Mud Pie Monograms in Charlotte. A month earlier, weary of the pain and bruising caused by carrying an infant car seat in the crook of her arm, she had conceived and created a 6.5-by-11-inch wraparound, decorative foam pad that would fit all baby seat handles.

“I was excited that as far as I could tell, this product did not exist,” she says. “But walking into that first store with my basket of handmade Padalilys, I almost didn’t get out of the car. I thought, ‘What are they going to say? What are they going to think? I’ve never done this; I don’t like sales; I’ve never sold anything.’ I was just so scared. But thankfully, I walked into the right store because they were just going crazy over it. There was a mom in there with a car seat and she said, ‘I want one!’ I said, ‘I don’t know if it’s legal for me to come in and do business in the store.’ One of the store owners was laughing. I ended up selling one right outside the door of the store.”

The owners were ready with advice. “They said, ‘You’d better get a manufacturer. Are you making these yourself? What’s your wholesale cost?’ I said, ‘I have no idea.’ I basically got a two-minute education on what I needed to find out about, and we’ve become friends since then.”

Winnail became a quick study despite the inevitable hurdles along the way. She says that today, the Padalily (means “Lily’s pad”

in French) and its line of sister products have amassed \$2 million in sales, with a net of \$1.2 million. The brand has sold in about 2,500 stores in the United States. She savors the satisfaction of developing a product that has helped mothers and families—while proving a godsend for her own family.

A Husband’s Help

The Winnails’ spacious, elegant home in a Charlotte suburb reflects a family with high standards. Lily isn’t embarrassed about liking nice things. “I sewed practically everything in here,” she says with a laugh. “I want everything to look great.”

But in 2010, the family’s comfortable lifestyle seemed in jeopardy when Lily’s husband, Shaun, was laid off from his sales job. He was out of work for three years. “It was scary until we realized that with the money from the Padalily, we could pay ourselves,” she says. “It sustained all of our needs and more. Everything stayed the same. It was just really cool to realize we could work together on this, and we could rock it.”

Lily Winnail’s
Padalily and sister
line of products
have amassed
\$2 million in sales.



Now back to work in medical sales, Shaun says Padalily “is pretty much all Lily now.” But his three years working on the business proved invaluable: “I kinda dealt with the operations side. I worked with the manufacturing plant, helped with sourcing, helped with sales, helped get national distributors on board. One of the biggest pushes was getting a couple of the big sales distributors on board in some showrooms in Atlanta and Dallas and then working the shows quarterly.”

In retrospect, Lily says Shaun’s availability was sweet serendipity. “People wanted me as the face of the company. But a lot of the buyers are women, so a lot of them gravitated toward Shaun with his 15 years of sales experience, these women who’ve owned boutiques for years. So there’s this young guy who’s super friendly. ... Plus, I felt like it was easier for him to talk me up than toot my own horn.”

Start-up Trials

In the early stages of a shoestring operation, Lily made six to 10 Padalilys an hour when she reached her top speed. “I probably made 300, and I had a girlfriend in Texas who made about 300. She made the cases. She would send them to me flat, and I would put the foam in them and sew here at home.”

Through random searches including Google, the Winnails found a manufacturer in Wisconsin but soon cut ties. “They started to double our prices because they knew we were doing well,” Shaun says. That led to a local cut-and-sew factory in Monroe, N.C., in 2008.

Lily designed the packaging, which enables the consumer to see the product inside. “For me, marketing was just innate. I know what looks good. I know what looks pretty.”

There was no formal marketing, either; sales came largely via word of mouth. Then the Winnails found a sales representative, Anne-Marie Davis of Lemonade Stand Showroom, who brought in a lot of volume for the business at stores and large trade shows that resulted in national exposure.

“I was a one-hit wonder,” Lily says. “I was finding with the sales rep, who works on commission, that a lot of people want you to have a large line of things. But the Padalily was such a hot item, it ended up being worth it anyway.”



PHOTO BY ANDI PERULLO

Growing Joys and Pains

By 2009, business was soaring in major showrooms—even as the second-worst recession in our country’s history was taking hold. “Four million babies are still being born. People are still buying baby gifts,” Lily says. “It’s a \$20 impulse buy (retailing at \$20-\$25, wholesaling at \$10-\$12). Not many people will say, ‘You had a baby? I can’t afford to buy you a gift.’ No, people still buy the gift.”

Lily got a call from the New Jersey headquarters of Buy Buy Baby, a national big box chain. “They wanted to place an order. I asked, ‘How did you hear about me?’

He said, ‘We’ve had so many moms coming into our store asking for your product. We really didn’t even know who you were.’

So I had this naturally organic call-out from moms.”

Padalily eventually got into Toys R Us and FAO Schwarz. Momentum also got a big boost from finding the right distributor, Shaun recalls. “It took a lot of persistence. Eventually we showed the Padalily to Gib Carson of Gib Carson & Associates in Atlanta, and his wife loved it. He and his father have been in the showroom gift industry for 30 to 40 years.”

Gift stores represented a lucrative new frontier, Lily says. “I was focusing on baby (stores). Well, there are about 100,000 gift boutiques in America, and maybe a tenth of that are actual baby specialty boutiques. Most gift stores have a little baby

section. They’re in every town. So with Gib Carson, we were getting orders from Ace Hardware. From pharmacies. Tons! Also from hospital gift shops. Of course we want these in hospital gift shops.

“Then the international distributors, they contacted us. ... We got Germany, the UK, the Netherlands, Canada. We went to China and the Philippines for manufacturing because we thought that if we’re going to have all of these international distributors, we have to get our prices down—and we were getting knocked off by people who were making in China.”

Because they had yet to be issued a patent, the Winnails had little recourse about the knock-offs. They did reduce prices but weren’t happy with the results. “People like having the superior brand,” Lily says. “That’s when I

realized how important the foam was. I ordered cheaper foam—not as resilient, not as dense—but didn't find it was as good of a product. That was very short-lived."

They've also gotten an education about the numerous laws and processes involving child products. The Padalily had to undergo rigorous tests for lead content, potential fire hazards and more. In addition, the Winnails learned that you can't sell to some of the big box stores for babies without at least \$5 million in liability insurance.

In light of all of this safety scrutiny, the Winnails are especially proud to have the endorsement of Charlotte physician Aviva Stein. After her first pregnancy, the doctor developed De Quervain's tendinitis—an irritation and inflammation said to be caused by overusing her hands. When she discovered and began using the Padalily following the birth of her second child, she said it reduced her hand pain.

"I recommended it to my patients," she says. "The whole transfer of infants in and out of anywhere is so cumbersome, particularly post-partum when you're more vulnerable to physical compromise. I also like the designs, the fact that these aren't just baby blue or black. There are zigzags and colorful designs that moms like."

Patent Patience

The Winnails' persistence in finding the right manufacturer and distributor was further rewarded when applying for their patent. "They say that any good patent will be rejected at first," Shaun says with a smile.

OPPOSITE PAGE: The Zig Zag Pacifier Bib (top) is a popular accessory. Mothers have responded well to the colorful and distinctive styles of Padalilys (below).

Lily Winnail (right) got crucial help from her husband Shaun (left) on the operations side of the business. Their three children are (from second to left) Blake, 9; Annaliese, 15; and Emma, 12.

Hard Stuff: Foam Science

The Padalily is a simple piece of foam. It's also a product of tireless experimentation, exacting standards and a good bit of science. In search of the perfect material, Lily Winnail first tried pillow stuffing. "It felt cushy, but when I wrapped it around the handle and there was the weight of my son in it, I knew that wasn't going to work.

"Then I found something called Poly-Fil Nu-Foam. It was like the pillow stuffing, but it had been layered and condensed so that I could buy 2 inches of it. I thought, 'This is going to work.' I made about 100 like that. It was better than the pillow stuffing but was not exactly what I was looking for.

"People were suggesting Memory Foam, but it doesn't have the resiliency. It's dense. When you put it down, it stays down. That's fine, but I needed something that's spongy."

She started thinking about the padding in cushions on chairs and took one apart. "Inside was a piece of foam and then the batting around it. It was polyurethane foam. So I started getting samples from companies. On the samples, it would show you prices and two different numbers: a resiliency number and a density number. The resiliency is how fast it bounces back to the weight. The density is how much or how little air is in the foam.

"So if I have a 15-20-lb. baby in a car seat that weighs probably 8-10 lbs., that's about 30 lbs. total. I don't want to feel that weight through the handle." That's when she started learning about the science behind foam and eventually settled on a material with these specs: HR 1.8 density, 21 ILD.

HR stands for high resiliency; 1.8 is the level of density; ILD stands for indentation load deflection. "In simple terms, ILD is the measure of how hard or soft a foam is, the number of pounds of pressure required to indent 4 inches of foam by 25 percent using a 50-square-inch indentation."

Actually, she says the sample she liked most was far too expensive. "It would have been the rock star of all foam. But I went with the one that I could afford that I also thought would do the job at a high level. The manufacturer cuts it, hotwires it, and it comes delivered in the exact size pieces that we need."





The Poche is a stylish diaper clutch and Padalily rolled into one.

The Winnails originally filed for a provisional patent, Lily recalls. “I had a patent attorney do a search, which came up with a bowling ball bag handle from the 1970s. His invention would pretty much not allow me to have a utility patent on the Padalily because it was the same concept.

“But then my attorney said, ‘Have you thought about improving your product?’ I said yes, I wanted to add a second tab, do some other things for better comfort. He said, ‘If you want to make changes in the design, why don’t we apply for a design patent on your final product?’”

The patent was rejected by the examiner the first couple times before it was approved in 2012. “There was also something to do with a pad that would go around the arms of a wheelchair, something about it in the prior art that the examiner was rejecting it,” Lily says.

Patent No. D 667241 is a source of great pride for the Winnails, but they’re realistic about what it means. “A patent doesn’t do very much unless you have the money to fight knock-offs when you have to,” Lily says. “Some people will do research on you to see if

you’re so small that you may not have the money to fight in court.”

On the other hand, she’s happy to see evidence that the product has legal standing. “When you go on YouTube, you see people talking about making your own DIY Padalily—not a DIY arm cushion but a DIY Padalily. That proves people see we have trade dress rights. It shows the strength of our brand.”

Making a Line of It

That strength was solidified when the Padalily won the \$15,000 Huggies MomInspired Grant in 2012. Lily took advantage of the money to make more product, update the website and design new styles.

She’s still amazed by her invention’s widespread appeal. Her January 2015 appearance on “The Steve Harvey Show,” which featured inventions by moms, was the result of the show’s producer being given a Padalily when she had a baby. After the show aired, “our sales went crazy,” Lily says. “Then in June, orders were suddenly flying in all over again and I didn’t know why. I found out they had run the show again.”

She knows the importance of avoiding complacency and is driven to provide more for mothers who want higher-quality products. So she added accessories. The highlight of the rest of her line is another invention, the Poche (French for “pocket”).

The Poche is a higher-end Padalily for moms who want to multi-task. One side is foam, the other side a pocket. Inside, there’s a place for a travel-size wipe and a couple of diapers. “That took off

Padalily Panic: Trashed!

When Lily Winnail determined that an experiment with cheaper foam for her Padlilys wasn’t ideal for business or her customers, she decided to give away the product. She spread the word online that any interested moms could have the Padlilys for nothing if they would pay for shipping.

“I had them all by the mailbox (right), hundreds of them sitting and ready to go in big boxes,” she said. “But a trash man from another company—not even our trash man—thought he was doing me a favor and wanted to be kind, and took all of those Padalilys and all of my outgoing mail and put it all in the trash.

“I couldn’t believe it!” she yelled while laughing. After everyone realized the mistake, “the owner of the trash company had the trash truck go to his house.

They dumped the entire contents of the trash truck on his lawn and had all the workers come in and find them and go through them, piece by piece by piece.”

She had to re-box the packages, some of which were crushed. “But the company was kind enough to pay for that. And we got free trash service for the year.”



really well. Our boutiques really loved it because when the baby is ready to outgrow the car seat, you can just toss the foam and you'll have another full section for your wallet or whatever. Her best seller that isn't the Padalilly, the Poche sells for \$35.

The line also includes a canopy/blanket, a pacifier loop built into a bib, and a pacifier/toy pouch. There are plans for a juvenile line; samples are being made, but nothing specific has been decided. "I want to be in on the cusp of new trends," she says.

One trend that both Shaun and Lily notice is how their sales are increasing on Amazon.com. This leads to even more of an emphasis on the Padalilly website. "When people come in organically from direct to consumer, there's a higher profit margin," she says.

The website shows her determination to show gratitude by helping others. She oversees Lily's Loving Arms to help those in need and supports causes that include Life Outreach International, Samaritan's Purse and the Pure Religion 5K. She's proud of her strong spiritual and religious background: "I asked God for this idea (the Padalilly). People think I'm crazy. One of my friends said, 'I'm just glad you asked.'"

After her appearance on national TV, Lily talked to many creative people who didn't know how to proceed with their ideas. "I tell them to do your research. Make sure the item doesn't exist. If it does exist that's OK, but you're going to have to work harder. You're going to have to market the product as why yours is better



Sales spiked after Lily Winnail's appearance on "The Steve Harvey Show" in January 2015, and again following a surprise re-airing last June.

and different. Stay persistent. Focus on gaining knowledge. Talk to people. Be willing to take advice. And get a patent attorney."

The nicest surprise of her journey has been "the connection with people and their kindnesses, how they helped me. Hopefully, sharing my story has been inspirational for other people who want to do something better with their lives." 📌

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MODEL MACHINE

SAVORING THE SLA 3D PRINTER'S VERSATILITY

BY JEREMY LOSAW

As I watched some recent preventative maintenance on an SLA 3D printer at Edison Nation, I had a technology epiphany.

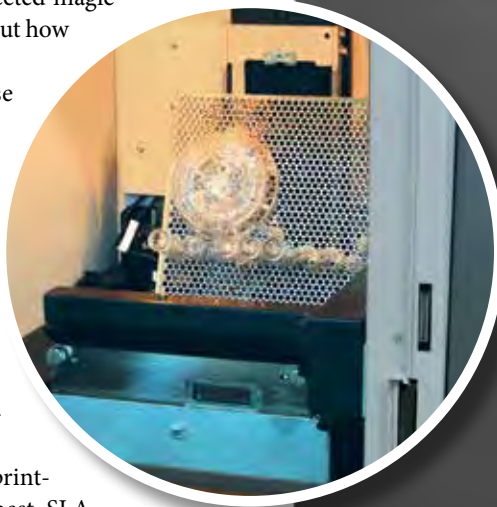
Shorthand for stereolithography, the SLA machine is so reliable that I often forget how remarkable it is. It was the same sort of moment you have sometimes while flying when you realize how a plane is such a complex piece of engineering, or when you stop to think about the interconnected magic inside a TV. So I did a little research about how these printers work and were invented.

The SLA 3D printer is a workhorse from 3D Systems. For 3D printer geeks or industry professionals, this one is a ProJet 6000. It prints in high resolution with a layer height of just .05mm, has a 10-inch cubed build volume, and is reliable. I can put parts on it on a Friday afternoon, let it run all weekend while enjoying my free time, and come in on Monday morning with a platform full of perfectly formed parts.

There are numerous types of 3D printing technology, but SLA is one of the best. SLA parts are fast to build, high-resolution, strong, and easy to paint and repair. They can be used to make tough working prototypes, or can be used to make molds for rubber parts. Very few prototypes made in the Edison Nation shop did not have the help of the SLA machine.

Sophisticated Science

My research found that the science behind these machines is as amazing as their efficiencies. Stereolithography is a resin-based type of 3D printing that uses ultraviolet light to cure the resin into the desired shape. It makes parts by tracing the geometry of each layer with concentrated UV light produced by a laser. The build platform is lowered into the resin bath after each layer to make fresh resin available for the next part. Depending on



Parts dry inside the build chamber of the ProJet 6000.



Parts are cleaned in an alcohol bath.

PHOTO COURTESY OF 3DSYSTEMS.COM

the geometry of the part, a wiper blade skims the resin every couple of layers to keep it building smoothly.

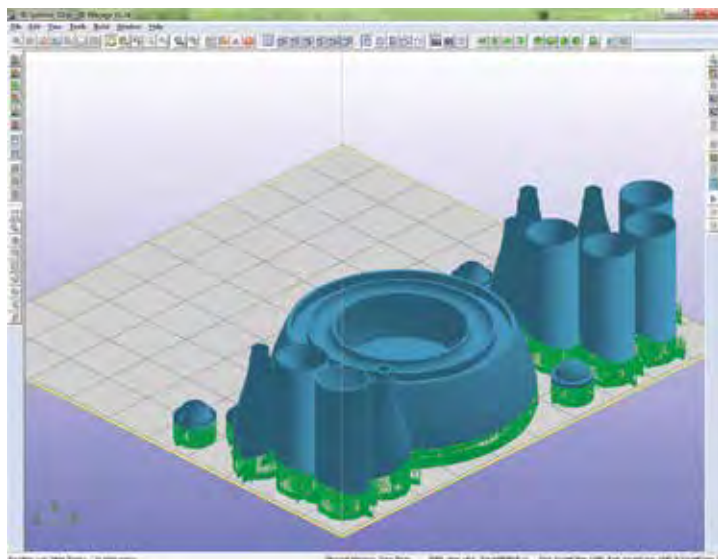
The software calculates where the overhangs are and prints a web-like matrix of support structure to keep the part stable. Once the build is finished, the parts are scraped off the build platform and the supports are torn off by hand. Then the parts are scrubbed and rinsed in an alcohol bath to remove excess resin. The finished parts are dried off and set into a UV light box for about a half hour to cure to their final toughness.

3D Systems has been at the forefront of stereolithography technology since its inception. Charles Hull built the first SLA machine in 1983 and filed his patent for the technology in 1986. He later founded 3D Systems, where the first commercially available SLA machine—the SLA-250—was sold in 1989.

3D printers and CAD software were not easily compatible at the time, so Hull developed the STL file format (.stl), a graphics file that was easy for the CAD software of the time to generate and easy for the SLA machines to process into layers to create build files. This same format is still used today for SLA machines and many other types of 3D printers.

One of the big technical hurdles was power consumption of the laser system. Generating laser light in the UV spectrum required a lot of power and the use of massive power supplies that were water cooled. The advent of solid-state lasers lowered the form factor and cooling requirements, and lowered the bar for customers because the printers now had a smaller footprint and a less complicated installation. However, the SLA material had to be tweaked to account for differences in the laser types. The first solid-state SLA system was launched in 1996, the core technology still found in current machines.

A virtual build platform of parts populated with .stl files. The web-like supports are shown in green.



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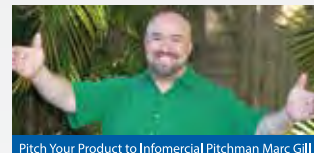
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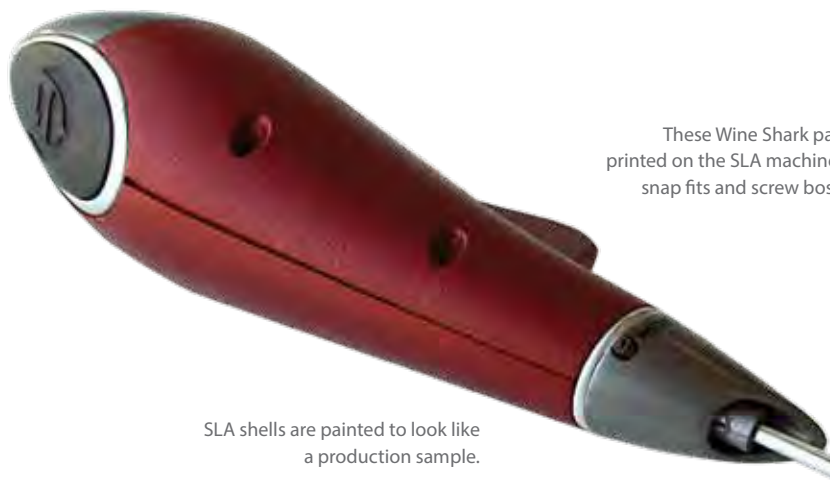


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SLA shells are painted to look like a production sample.

These Wine Shark parts were printed on the SLA machine with snap fits and screw bosses.



Charles Hall built the first SLA machine in 1983 and filed his patent for the technology in 1986.

The resolution and strength of SLA parts make them useful for prototyping. The photo-curable SLA material is more brittle than an engineered plastic. However, bendable features such as snap fits can be prototyped if you're careful about handling them and don't cycle them too many times. The material will also hold plastic screws without stripping, so it's really good for making functional models. The high resolution makes for fully resolved models that can be used for one-to-one validation of part geometry and test fitting.

Sophisticated Science

Sometimes there are part geometries that are fine for the final molded product but too small or would take too much force and break in SLA. In these instances, increasing the wall thickness or thickening certain areas of the part can ensure that it will live through the rigors of testing the prototype. There is no magic formula when deciding when to beef up certain areas.

However, it's usually easier to remove excess material than to fix a broken feature. If the model does break, the material is easy to fix. Cyanoacrylate glue, often referred to as super glue or CA glue, bonds it together. Another trick to repair an SLA part is to lay strips of fiberglass over the inside of the broken area and use off-the-shelf, two-part epoxy to wet out the fiberglass and adhere it to the part.

Another great feature of SLA is that it's easy to sand and paint. When the parts come off the machine, they have steps in them from the layered build process. These smooth out very

easily with sandpaper. Some engineered plastics, like HDPE and polypropylene, have a high surface energy that makes the surface slick and resists adhering to paint. However, SLA material easily bonds to paint, and prototypes can easily be made to look like production samples.

SLA parts can also be used to make molded parts. One way is to make an SLA print of the finished part and pour silicone over it. When the silicone hardens, the SLA part is removed and a cavity is left to make a mold. Liquid urethane can be injected into the mold to make rubber parts. Alternatively, a mold can be designed and made directly with SLA material. Then room-temperature curing material such as silicone or urethane can be poured into the mold to form the part.

Although SLA has been primarily used by professional product developers, it's becoming more accessible to casual inventors. The life cycle of many of the SLA patents has run its course, and the technology is now in the public domain. This has led to a multitude of companies developing desktop SLA machines.

The Formlabs Form 1 and Form 2 and the XYZ-printing Nobel 1.0 are just a few of the options.

Both have about 5-inch square build platforms, with prices ranging from \$1,500 to \$3,700 to get started. Alternatively, 3D printing services such as Quickparts and Proto Labs offer SLA parts that are shipped in just a few days. Prices are based on the size and geometry of the part, and are a good option for inventors lacking the capital or expertise to have a printer at home. 🏠



A mold made on the SLA machine is used to make urethane rubber parts.



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Supreme Court to Weigh In on Patents

AT STAKE: TWO KEY IPR QUESTIONS

BY GENE QUINN

On April 25, the United States Supreme Court heard oral arguments in *Cuozzo Speed Technologies v. Lee*, the first case in which the high court may weigh in on the controversial post-grant administrative proceedings for challenging issued patents created by the America Invents Act (AIA).

The Supreme Court will address two critically important questions associated with inter partes review (IPR) proceedings in this case. An IPR is a process that challenges a patent's validity before the United States Patent and Trademark Office.

The first question asks whether it is appropriate for the USPTO to use a different claim constructions standard than used in federal district court. The second question, on which very little time was spent during oral arguments, relates to whether institution decisions are insulated from judicial review.

Four Reasons for Reversal

Garrard Beeney, the attorney for the petitioner, began his argument explaining “why the use of the broadest reasonable interpretation expedient in no way comports with the Congressional purpose of inter partes review.”

Beeney added that there are four reasons that the broadest reasonable interpretation standard, or “expedient” as he kept calling it, should be reversed. The first of the reasons was that the broadest reasonable interpretation standard “demands a broad ability to amend claims.” Justice Sonia Sotomayor interrupted Beeney to say that she doesn’t think this helps him, since Congress did provide for a right to amend.

Beeney correctly pointed out that the right has only been interpreted as a right to file a motion to amend, not an absolute right to amend, with virtually all motions to amend being refused. Obviously prepared for the question, Beeney explained that the Patent Trial and Appeal Board has denied motions to amend 95 percent of the time. Further, Beeney explained that while the PTAB has canceled 10,000 claims during the last 42 months during inter partes review proceedings, fewer than 30 claims were allowed to be amended.

Chief Justice John Roberts pushed Beeney away from this to address the other reasons that the broadest reasonable interpretation is not the proper standard. Beeney explained that it makes no sense for the PTAB to give patent rights “a hypothetical interpretation of their metes and bounds rather than doing what district courts do, which is to give claims their actual plain and ordinary meaning.” Beeney’s third reason was that application of broadest reasonable interpretation leads to claims meaning different things at the PTAB than in the district courts, which he characterized as untenable. Finally, Beeney took exception with the USPTO’s offered reasoning that it has always used the broadest reasonable interpretation standard, which means it did not take into consideration the fact that post-grant proceedings are a district court substitute.

Beeney was then barraged with questions. Justice Samuel Alito asked several general questions, Justice Ruth Bader Ginsburg asked whether the standard chosen was outcome determinative, and then Justice Anthony Kennedy asked why broadest

Perhaps the best question of the entire oral argument was asked by Chief Justice John Roberts: “So why should we be so wedded to the way they do business in the PTO with respect to the broadest possible construction when the point is not to replicate PTO procedures?”



reasonable interpretation isn't the proper standard: "If the patent is invalid under its broadest, reasonable interpretation, doesn't that mean the PTO should never have issued the patent in the first place, and doesn't that give very significant meaning and structure to this process?"

Unfortunately, Beene y fumbled the answer here, in my opinion. The answer should have been a resounding NO! Property rights should not be stripped without proper process and treating an issued patent claim, which is by statute and Supreme Court precedent a property right, the same as an unissued claim is simply inappropriate under our laws. It is also inappropriate under a property rights regime. Once a patent has been issued as a property right, applying a lower standard cheapens the examination process and ignores the property right mantle bestowed by the federal government.

Breyer's Folly

Justice Stephen Breyer brought up the issue of patent trolls, a disconcerting trend in Supreme Court patent cases. It is becoming cliché for the Supreme Court to talk about patent trolls in a hypothetical and largely irrelevant manner. But Justice Breyer went further, showing his ignorance of the issue and disdain for patents.

He said the USPTO has been giving "billions" of patents that should have been issued (while conceding that he might have been overstating that some). Breyer also defended the broadest reasonable interpretation standard as a means of saving "those who were suffering from too many patents that shouldn't have been issued in the first place."

For those who care about facts, since 1836 the patent office has issued just over 9,320,000 patents. So for Justice Breyer to say that the office is issuing "billions" of bad patents to patent trolls is not only false but asinine. That Justice Breyer actually has a vote on issues of such great importance to the patent system is a travesty. This kind of exaggeration of the so-called patent troll problem is done for two very specific purposes: to vilify patent owners and to denigrate the USPTO.

This utterly absurd statement should have right-thinking people questioning Breyer. Given these statements and Breyer's well-documented and unmistakable anti-patent philosophy, he has already made up his mind.

Debating Standards

Beene y mentioned that 85 percent of the time patents challenged in inter partes review are subject to district court litigation and that district courts stay the litigation about 70 percent of the time—which means "the judiciary is deferring to the board in making decisions about the patentability of the claims that are at issue." Chief Justice Roberts referred to this as "a little burdensome to the district court," which will get "into the patent case and then take whatever the trial and appeal board says is the proper approach—whether it's valid or not." Beene y argued this is another example of why inter partes review was conceived as a substitute for district court litigation and requires the use of the district court standards. Roberts again brought up this issue at length with the respondent.

Justice Elena Kagan said that looking at the statute, there is no mention of whether broadest reasonable interpretation or the district court standard should apply. Further, she said that with the USPTO doing everything using broadest reasonable interpretation, she thought that if Congress wanted the district court standard that it would have, or should have, stated that in the statute. Justice Ginsburg, however, correctly pointed out that the proceedings created by Congress are a little bit like an administrative proceeding, as well as a little bit like a district court proceeding.

Beene y briefly brought up the appealability issue: "Our position is that under the heavy presumption of judicial review of administrative actions, there's nothing in the statutory scheme that meets the heavy burden to overcome that presumption." Justice Ginsburg asked the only questions, and she was skeptical because if the reviewing court can only review final judgments, that would mean the "statute is doing no work, because there would be a bar on interlocutory review under the final judgment rule."

Next up was Curtis Gannon, assistant to the solicitor general, arguing on behalf of the Department of Justice. His argument was that the USPTO has reasonably decided to use its longstanding broadest reasonable construction approach in inter partes review proceedings because, as Justice Ginsburg noted, the patent office is a hybrid. But the USPTO reasonably concluded that these are materially more like all of the other proceedings

that the USPTO (and before that, the patent office) has had in which it has repeatedly used precisely this approach. And it has expressly used this approach when it is possible for claim amendments to be made because it promotes the improvement of patent quality that Congress was interested in promoting in the America Invents Act by eliminating overly broad questions.

Gannon admitted that the patent office does not use prosecution history to interpret claims, while district courts do use prosecution history for that purpose. He finally admitted that district courts are supposed to adopt a construction that saves the claims where the patent office does not similarly apply a saving construction for claims.

One of the more disingenuous moments of the oral argument came when Gannon explained: “Only about 13 percent of patentholders in IPRs have actually filed motions to amend. And there have now been six motions to amend that are granted. There was one new one last week. It’s a small number.”

Of course, only a small percentage of patent owners are wasting their time filing motions to amend that are summarily rejected in virtually all cases. The message was received by the patent community, loud and clear. The PTAB says patent owners have a right to file a motion to amend but absolutely no right to amend. The federal circuit has agreed with this silly interpretation of the statute.

PTAB, Court Interplay

Perhaps the best question of the entire oral argument was asked by Chief Justice Roberts: “So why should we be so wedded to the way they do business in the PTO (patent and trademark office) with respect to the broadest possible construction when the point is not to replicate PTO procedures? It’s supposed to take the place of district court procedures.”

Gannon’s response pointed to the difference in the burden of proof between the district court (i.e., clear and convincing) and the PTAB (i.e., preponderance). Chief Justice Roberts responded, “it’s a very extraordinary animal in legal culture to have two different proceedings addressing the same question that lead to different results.” Gannon replied that there are “multiple reasons” that different results could be achieved, to which Roberts said: “There’s a problem here, and so we should accept another problem that’s presented where we don’t have to do it.”

Roberts asked Gannon whether the district court could disagree with the board, to which Gannon replied: “Yes. As long as the patent still exists.” Troubled by the answer, Roberts pointed out that the district court has a responsibility to interpret the patent using a different standard and may reach a different result. He asked: “So if the district court interprets the patent, is that binding on the PTO?” Gannon replied: “No.”

So we are left with decisions by the PTAB that are not binding on the district court and decisions by the district court not binding on the PTAB, which led the Chief Justice to say: “I’m sorry. It just seems to me that that’s a bizarre way to ... decide a legal question.”

Page after page in the transcript, Chief Justice Roberts peppered Gannon with questions about the bizarre nature of inter partes review procedure. Showing his disgust—and a fair amount of comprehension, I’d say—an exasperated Roberts asked: “And this is under a statute designed to make the patent system more reasonable and more expeditious in reaching judgments?”

After broadest reasonable interpretation dominated Gannon’s argument, as it did with Beene’s argument, eventually questions turned to the issue of appealability. Though Justice Ginsburg previously seemed skeptical on the petitioner’s position on appealability, she seemed very concerned with what the inability to appeal

would mean. Ginsburg asked Gannon to turn to the reply brief where a series of rulings the board might make are listed, all of which would be immune from any judicial review. Gannon’s said that the proper recourse in those scenarios would not be an appeal but to file a petition for mandamus.

My instant reaction was that things did not go very well for the petitioner; then again, things seemed to go even worse for the respondent.

The Early Scorecard

After a very hot Supreme Court panel went to town asking questions, Beene managed to escape his very brief rebuttal without any questions.

My instant reaction was that things did not go very well for the petitioner; then again, things seemed to go even worse for

the respondent. Chief Justice Roberts seems extremely unhappy with the inter partes review procedure conjured up by Congress, implemented by the patent office and tolerated by the federal circuit. Roberts’ objections are on an administration of justice level, which bodes very well for the petitioner. Of course, his is but one vote, and Justice Breyer seems far more interested in the patent trolls not in the room than the specific issues before the court.

All in all, I’d say that the argument tilted in favor of the petitioner, but there will be time enough for second-guessing and analysis over the coming days and weeks. A decision is expected before the Supreme Court takes its summer recess. But given that the case was not argued until the end of April, I’m not expecting a decision before the end of June. Stay tuned! 🎧

Gene Quinn is a patent attorney, founder of IPWatchdog.com and a principal lecturer in the top patent bar review course in the nation. Strategic patent consulting, patent application drafting and patent prosecution are his specialties. Quinn also works with independent inventors and start-up businesses in the technology field.





What's The Proper Claim Construction Standard?

A QUESTION OF TWO INTERPRETATIONS **BY GENE QUINN**

Determining the proper claim construction standard will be a key issue when the United States Supreme Court rules soon in *Cuozzo Speed Technologies v. Lee*. Specifically, the court will consider whether institution decisions are forever insulated from judicial review and whether the Patent Trial and Appeal Board applies the proper claim construction standard.

The issue the court must decide is created because the PTAB applies the broadest reasonable interpretation (BRI) standard, which is a broader standard, while federal district courts do not apply BRI when interpreting an issued claim during claim construction in patent litigation. Instead, district courts narrowly interpret claims in an attempt to find a true and correct construction of the claims.

The law is unequivocally clear: District courts do not apply the broadest reasonable interpretation standard. It is so axiomatic that district courts use a different standard than does the United States Patent and Trademark Office when interpreting claims, it is almost difficult to figure out how it is possible that some seem to be arguing that the standards applied by the PTAB and the district courts are the same. Simply stated, they are not the same.

What the Patent Office Says

Perhaps the best evidence of the acknowledgement of a different standard between the way the patent office and district courts interpret claims is guidance issued from the office itself. In the Manual of Patent Examining Procedures (MPEP 2111), the office explains to examiners that they are to use a different standard:

"Patented claims are not given the broadest reasonable interpretation during court proceedings involving infringement and validity, and can be interpreted based on a fully developed prosecution record. In contrast, an examiner must construe claim terms in the broadest reasonable manner during prosecution as

is reasonably allowed in an effort to establish a clear record of what applicant intends to claim. Thus, the Office does not interpret claims in the same manner as the courts."

Though not binding on the courts, this statement of office policy suggests that even the patent office would disagree with those suggesting that the standard is the same.

Applying the broadest reasonable interpretation of patent claims during the patent examination process makes sense, given the role the patent examiner plays in determining whether to issue a patent in the first place. As the patent examiner considers the novelty and obviousness of the patent claims offered by the applicant, the BRI standard informs the decision making from an analytic standpoint. While deciding whether the claim would capture the prior art as written, the examiner gives the patent claim the most expansive reading consistent with the disclosure of the invention in the patent application. The goal of BRI is to see whether the claim overlaps with the prior art and must be rejected when it is stretched to its logical extreme.

This broadest reasonable interpretation of the claims is made as the claims would be understood by one of ordinary skill in the art. This was explained in *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005):

"The Patent and Trademark Office ("PTO") determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art."

This is the only passage in *Phillips* that uses the term "broadest reasonable construction." Clearly, the federal circuit is discussing how the patent office interprets claims and concludes that if the office is going to rely on the specification when construing claims, it seems appropriate for a reviewing court to similarly rely on the specification as well. It does not say that the court should employ the broadest reasonable construction.

What the Federal Circuit Says

In fact, district courts do not employ the broadest reasonable interpretation of claims, which the federal circuit's recent precedential decision in *PPC Broadband, Inc. v. Corning Optical Communications* (Feb. 22, 2016) explained. The decision dealt with a review of several decisions from the PTAB from related inter partes review (IPR) proceedings. Writing for the unanimous panel, Federal Circuit Judge Kimberly Moore explained that "claim construction in IPRs is not governed by *Phillips*. Under *Cuozzo*, claims are given their broadest reasonable interpretation consistent with the specification, not necessarily the correct construction under the framework laid out in *Phillips*."

Judge Moore also wrote that the construction of the critical claim term by the PTAB was "not the correct construction under *Phillips*, it is the broadest reasonable interpretation..." It is telling that Judge Moore (joined by Judges Kathleen O'Malley and Even Wallach) would characterize the *Phillips* standard as "the correct construction" while directly contrasting it with the broadest reasonable interpretation, which is the way the patent office interprets claims.

It is almost difficult to figure out how it is possible that some seem to be arguing that the standards applied by the PTAB and the district courts are the same. Simply stated, they are not the same.

It is also critically important to recognize that *Phillips* specifically acknowledged and accepted the principle that a court construing patent claims should construe the claims, if possible, to preserve validity of the claims. While the maxim that a reviewing court should, where possible, construe a claim to preserve validity is only applicable in limited scenarios, the maxim remains good law. There are dozens of cases that have applied this maxim over the last generation, and the *Phillips* court continued to recognize its existence.

Simply put, a patent examiner applying the BRI standard cannot and does not ever interpret claims being reviewed in order to preserve validity where possible. Similarly, when the PTAB applies the same BRI standard, it is not seeking to preserve patentability either. Preserving patentability is not the purpose of the BRI standard and exactly why it is the inappropriate standard once a patent claim has been issued and no longer subject to examination.

As the federal circuit has previously explained, "[i]t would be inconsistent with the role assigned to the PTO in issuing a patent to require it to interpret claims in the same manner as judges who, post-issuance, operate under the assumption the patent is valid." *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

So the question the Supreme Court must answer is whether an administrative judge who refuses to allow amendments to the application must presume the patent is valid and apply the *Phillips* standard instead of the BRI standard that is used during prosecution of an application. ☐

The Presumption of Validity

ISSUE HAS STRONG LINK
TO CUOZZO CASE **BY GENE QUINN**



Once issued, patents are statutorily presumed valid. Although the Patent Trial and Appeal Board refuses to presume issued patents are valid, federal district courts must presume they are. Furthermore, in order for a patent claim to be successfully challenged as being invalid, the defendant must come forth with clear and convincing evidence that the claim is invalid. That was reiterated recently by the Supreme Court in *i4i v. Microsoft*.

On the issue of the presumption of validity, some argue—including the federal government—that the presumption of validity owed to an issued patent does not apply to the patent office because the office does not owe any deference to itself.

This point was made explicitly in an amicus brief filed with the United States Supreme Court in *Cuozzo Speed Technologies v. Lee*, a case in that for the first time the Supreme Court will consider the propriety of the rules associated with post-grant administrative trials created by the America Invents Act (AIA). For example, Unified Patents Inc.—which filed a brief in the *Cuozzo* case—makes the following argument:

"Differences between the courts and the PTO (patent trademark office) in claim interpretation may be attributable to factors other than the claim construction standard. One of these factors is the statutory presumption of validity, which is a court's expression of "the deference that is due to a qualified government agency presumed to have properly done its job which includes [personnel] who are assumed to have some expertise in interpreting the references and to be

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familiar from their work with the level of skill in the art and whose duty it is to issue only valid patents”—*American Hoist and Derrick at 1359*. In short, a court will defer to agency expertise—the technical expertise used by the PTO in review proceedings, initial examination, and claim construction. ... PTAB district court judges must deal with a broad universe of cases, and are not required to have the engineering or scientific background required of PTO examiners or PTAB judges, whose focus is much narrower. In contrast, the PTAB determines technical truth guided by its own technical and scientific training, with the input of the parties. Absent deference to the expertise of the agency, there is no presumption of validity.”

Hoist Reference is Curious

There are numerous problems with this paragraph.

First, it is curious that *American Hoist and Derrick* would be used to suggest that the statutory presumption of validity is tied in some way to deference due to the qualified agency. That is not what *American Hoist and Derrick* says. In *American Hoist and Derrick*, Judge Giles Sutherland Rich wrote:

“The two sentences of the original § 282, which, though added to, have not been changed, amount in substance to different statements of the same thing: The burden is on the attacker. And, as this court has been saying in other cases, that burden never shifts. The only question to be decided is whether the attacker is successful. When no prior art other than that which was considered by the PTO examiner is relied on by the attacker, he has the added burden of overcoming the deference that is due to a qualified government agency presumed to have properly done its job, which includes one or more examiners who are assumed to have some expertise in interpreting the references and to be familiar from their work with the level of skill in the art and whose duty it is to issue only valid patents.”

There is no statement here that says that the presumption of validity exists only because of deference to the expertise of the agency. What Judge Rich is saying is that patents are presumed valid, the burden never shifts to the patentee to prove anything because patents are presumed valid—and if all the challenger is going to do is cite the same prior art already considered by the patent examiner, he or she is going to have an even more difficult time of overcoming the presumption of validity. *American Hoist and Derrick* does not stand for the proposition for which it was asserted in the Unified Patent brief.

Second, in *American Hoist and Derrick*, Judge Rich explains that the statutory presumption of validity codified into the 1952 Patent Act stemmed not from any deference to the patent office but rather from “the basic proposition that a government agency such as the then patent office was presumed to do it job.”

This is an important point. There is a subtle distinction between giving the patent office deference and assuming that it has done its job properly the first time. Unified Patents argues that the patent office is not required to give issued patents a presumption

of validity because the office issued the patents in the first place, and the presumption only exists because courts must give patent examiners deference—a deference that the PTAB must seemingly not provide to examiners. But the presumption is not based on deference to the agency or letting the agency do whatever the agency wants with a property right. Instead, as Judge Rich explained, the presumption was based on the sensible belief that patent examiners did their job properly. If it is reasonable for district courts to believe that patent examiners did their job properly, it can and should be equally believable to the PTAB.

Finally, the inconvenient truth presented by the presumption of validity is that it is very simple, straightforward and easy to understand. 35 U.S.C. 282(a) says, in its entirety:

“A patent shall be presumed valid. Each claim of a patent (whether in independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim. The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.”

Nowhere does the statute say that this presumption of validity attaches only to patents being reviewed in federal courts. Instead, the law simply says, “a patent shall be presumed valid.” It is also worth specifically pointing out that the law does not say that a patent shall be presumed valid unless the patent office wants to take a second look at the patent, or a petition challenging the patent is filed with the PTAB. Patents are supposed to be presumed valid, period.

**35 U.S.C. 282(a)
says, in its entirety:
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are supposed to be
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period.**

Presumption Wasn't Changed

Congress created the Patent Trial and Appeal Board (PTAB) in the AIA, when it also created inter partes review (IPR), post-grant review (PGR) and covered business method (CBM) review. Many changes were made to the statute in the AIA, including a fundamental shift in the definition of what constitutes prior art. After at least 150 years of a first-to-invent system, the AIA also ushered in a first-to-file system. The changes to patent law brought into being by the AIA were both numerous and monumental. Yet, Congress did not change the presumption of validity, instead choosing to continue to say that an issued patent shall be presumed valid. Had Congress wanted the PTAB to ignore the presumption of validity, as it does now, it would have been very easy for language to be drafted and inserted into the bill to create a bifurcated presumption of validity. No such bifurcation in the presumption of validity exists.

It's unclear whether the Supreme Court will address the presumption of validity when it decides *Cuozzo*. The issues taken by the court for review do not squarely bring the presumption of validity into question, but many in the industry believe it is difficult, if not impossible, to appropriately and fully address the issues surrounding the broadest reasonable interpretation (BRI) standard without at least some consideration of whether patents should be presumed valid by the PTAB. 🐶



What to Do About *Alice*?

TWO YEARS AFTER RULING,
SOFTWARE PATENT ELIGIBILITY IS A MESS

BY GENE QUINN



On April 19, IBM Chief Patent Counsel Manny Schecter gave a keynote presentation at the Innography Insights 2016 conference in Austin, Texas. The title of his presentation was simple and straightforward: “What should we do about *Alice*?”

Although most of Schecter’s presentation was on defining the problems presented by the June 2014 United States Supreme Court decision in *Alice v. CLS Bank*—which made it all but impossible for any software patent claims written in method form to survive challenge—he ended saying he thinks we are at a point where we need a legislative fix to Section 101. I tend to agree.

Showing a bowl of spaghetti on one of his first few PowerPoint slides set the tone. The law as it applies to software patent eligibility is a tangled mess. “The Supreme Court has continually taken cases in this area and rather than clarify, they have continued to hang on,” Schecter explained, referencing the fact that the high court seems committed to the belief that its 101 jurisprudence is consistent and reconcilable. Of course, that is not the case. “There are too many cases that conflict with each other.” He is right.

Judge Richard Linn of the federal circuit told me the same thing in an interview in fall 2014, saying: “I have great difficulty rationalizing the Supreme Court’s opinions in *Flook* and *Diehr*, and in many regards I think those decisions are irreconcilably in conflict.” That conversation I had with Judge Linn was after the Supreme Court’s *Alice* decision but before many in the industry were willing to accept just how challenging the *Alice* decision would become.

Invalidations Are the Rule

According to Schecter, since *Alice*, some 65.75 percent of patents challenged in district courts have been invalidated under 101, with the success rate even worse at the federal circuit. Since the ruling two years ago, 91 percent of patents have been invalidated under 101 at the federal circuit, with the court’s decision in *DDR Holdings* representing the sole case where a patent-eligible computer implemented invention was found to exist.

During his presentation, Schecter lamented a point I have frequently brought up—the lack of a definition for the term “abstract idea.” I have asked this simple question repeatedly: How is it fair under our system of laws to have a doctrine that is used to strip away property rights when the key term within that doctrine isn’t defined?

“I would say [the Supreme Court] didn’t tell us what it means because they can’t, so they punted it to the lower courts. This has been going on for decades,” Schecter explained. Once again, Schecter is right. The Supreme Court has created judicial exceptions to patent eligibility even though there is not even the most remote hint in the statute that the courts have the authority to create any exceptions. Nevertheless, one of those judicial exceptions says that you cannot patent an abstract idea. In *Alice*, the Supreme Court took another step down the abstraction path by proclaiming that a patent could still be obtained if there is something significantly more at the heart of the claim than merely that abstract idea.

For Schecter, this leads to a critical question: “How can you

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know if there is something more than something that is significantly abstract if you don't know what it means to be abstract?" A very good question! Obviously, you cannot evaluate a patent claim with this undefined, circular Supreme Court test. "It would be great if you could (evaluate a claim with this test), but you just can't," Schecter told the audience.

In *Alice*, the Supreme Court did seem at least somewhat cognizant of the fact that it was embarking upon a path that risked swallowing patent law whole: After all, every invention starts with an idea. The court cautioned against allowing that to happen—but the test it conceived, lacking definition and unbounded by earthly logic, seemed to do exactly the opposite.

"They are looking for a light touch here," Schecter said. "They just don't know how to do it." And that might be one of the most accurate and pithy observations about *Alice* I've heard. It seems unlikely that even the Supreme Court wanted to effectively rule that software is not patent eligible, but for all intents and purposes that seems to be the practical effect of the fallout of the *Alice* decision—at least for a lot of pockets of computer-implemented innovation.

Looks Worse Over Time

Schecter said that when he first read *Alice* he didn't really think it was that bad, which is something I've heard from many patent attorneys. Over time, he has come to think it is quite bad based on how it is being implemented and how the test is completely unpredictable. "If you read the case, the Supreme Court seems to think that software must be patentable, but the problem is they gave us a test that doesn't lead to that being the case."

Some will quibble with the suggestion that software is not patentable, because software is still patented. Whether those patents will remain patentable when challenged is another story. Still, trying to be objective, Schecter acknowledged the alternative view. He explained that according to Bart Eppenauer, former chief patent counsel at Microsoft, computer-implemented inventions that have a technical aspect are upheld two-thirds of the time in district courts when challenged under 101. Assuming that is true, "that still means that one-third of patents in the computer-implemented innovation area that clearly have a technical aspect are being found patent ineligible, which is simply too far over-shooting the mark," Schecter explained.

The problems *Alice* has created are many, but Schecter highlighted several in particular.

"Does it strike you as odd that an invention could start its life as something that is patent eligible and then become so popular that it is no longer patent eligible? That doesn't make sense to me." This subject of ubiquity is one that Schecter has written about before, including an article on IPWatchdog.com titled *Abstraction in the Commonplace: The Use of Ubiquity to Determine Patent*

Eligibility. It does seem that the more commonplace an invention is at the time it is challenged, the more likely it will be viewed by Judges as being patent ineligible. Rather than appreciating how extraordinarily difficult it may have been to bring the invention into being at the time of original innovation, the fact that there is widespread infringement almost seems to suggest to some that the invention isn't particularly worth protecting.

That seems exactly backwards to me. If ubiquity can be used to demonstrate an invention is patent ineligible, that means widespread infringement of groundbreaking innovations becomes a silver-bullet defense. How can massive and unprecedented infringement be a legitimate (or intellectually honest) defense to a charge of infringement? Unfortunately, that seems to be where we are today.

Schecter also noted that judges and patent examiners are doing exactly what the law prohibits them from doing, which is cherry picking words from claims rather than interpreting the claim as a whole. "Judges and examiners are pulling a few words out

of the claims and saying the claim covers a concept that is abstract," Schecter said. "They are also applying hindsight." To drill this point home, Schecter relied on *Thales Visionix v. USA and Elbit Systems*, which dealt with a system for tracking the motion of an object relative to a moving reference frame and is used for a helmet-mounted display system and an F-35 fighter jet.

The Court of Claims found the claims patent ineligible because it said the claims were abstract and not specifically limited to use with a helmet-mounted display and an F-35 fighter jet. Although the claims may not have been so limited in the specific language of the claims, what is abundantly clear is that the claims did not cover an abstract idea, despite what the Court of Claims ruled. The claims specifically required two different sensors and an orientation

relative to a moving reference frame. So as much as many might like for this claim to be abstract, it just isn't.

Where Do We Go Next?

Again: How can a claim that specifically incorporates tangible components be found to be abstract? In my mind, decisions like this are intellectually bankrupt. Clearly sensors exist; they are not imaginary, they are not abstract. We know what they are, and the claims are not limitless. But again, this is what passes for thoughtful judicial decision-making in the *Alice* generation—thanks to a wholly unworkable test from the Supreme Court.

How did we get here? "We've made computers so easy to use that we've convinced the courts that the inventions that go into making computers easy to use aren't worthy of patents," Schecter explained. He added that these inventions are not easy to create

IBM Chief Patent Counsel Manny Schecter says that since the *Alice* ruling two years ago, 91 percent of patents have been invalidated under Section 101 at the federal circuit.

(Continued on page 43)



FTC Accuses Drug Firms of Pay for Delay

COMPLAINT SAYS COMPANIES VIOLATED ANTITRUST LAWS **BY GENE QUINN**

The Federal Trade Commission recently filed a complaint in United States Federal District Court for the Eastern District of Pennsylvania, alleging that Endo Pharmaceuticals Inc. and several other drug companies violated antitrust laws by using pay for delay settlements to block consumers' access to lower-cost generic versions of Opana ER and Lidoderm. According to the FTC, this enforcement action is its first case challenging an agreement not to market an authorized generic—often called a “no-AG commitment”—a form of reverse payment.

This enforcement action comes thanks to a June 2013 ruling from the United States Supreme Court in *FTC v. Actavis, Inc.* In a nutshell, writing for the majority, Justice Stephen Breyer explained that there is no valid reason for the FTC to be denied the opportunity to pursue reverse payments as an antitrust violation. Breyer, who was joined by Justices Anthony Kennedy, Ruth Bader Ginsberg, Elena Kagan and Sonia Sotomayor, determined that reviewing courts should apply the rule of reason when determining whether reverse payments violate antitrust law. Prior to the ruling in *FTC v. Actavis*, it was widely believed that the FTC did not have authority to challenge reverse payments as settlements of patent disputes.

“Settlements between drug firms that include ‘no-AG commitments’ harm consumers twice—first by delaying the entry of generic drugs and then by preventing additional generic competition in the market following generic entry,” said FTC Chairwoman Edith Ramirez. “This lawsuit reflects the FTC’s commitment to stopping pay-for-delay agreements that inflate the prices of prescription drugs and harm competition, regardless of the form they take.”

Disgorgement Order Sought

The FTC’s complaint alleges that Endo engaged in a pay-for-delay scheme by paying the first generic companies that filed for FDA approval—Impax Laboratories, Inc. and Watson Laboratories, Inc.—to eliminate the risk of competition for Opana ER (an extended-release opioid used to relieve moderate to severe pain) and Lidoderm (a topical patch used to relieve pain associated with post-herpetic neuralgia, a complication of shingles), in violation of the Federal Trade Commission Act.

Under federal law, the first generic applicant to challenge a branded pharmaceutical’s patent, referred to as the first filer, may be entitled to 180 days of exclusivity as against any other generic applicant upon final FDA approval. But a branded drug manufacturer is permitted to market an authorized generic version of its own brand product at any time, including during the 180 days after the first generic competitor enters the market. According to the FTC, a no-AG commitment can be extremely valuable to the first-filer generic, because it ensures that this company will capture all generic sales and be able to charge higher prices during the exclusivity period.

The FTC is asking the district court to declare that the defendants’ pay-for-delay conduct violates antitrust laws, and further seeks an order that the companies disgorge their ill-gotten gains. Of course, the FTC asks for a permanent bar to prevent the companies from engaging in similar anticompetitive behavior in the future.

A side note: Although I am not about to justify anticompetitive behavior, I find it amusing in a very hypocritical way that the FTC is asking for a permanent injunction



to forever prevent anticompetitive behavior. Why would the FTC need a permanent injunction? A patent owner who has successfully demonstrated a patent, which is a wasting asset, cannot get a permanent injunction to order the infringer to cease and desist all current and future infringing activity. Those who complain that permanent injunctions for patent owners are unfair and unjust say that patent owners simply need to start all over again with a fresh lawsuit if infringement continues.

So if that rule makes sense for patent owners, how could it not make sense as a limitation on the assertion of government power? After all, the FTC has been among the agencies that have been suspicious of patent owners enforcing their rights. They can be suspicious, I guess, but to then turn around and request a permanent injunction themselves strikes me as enormously hypocritical.

The Detailed Allegations

In any event, the FTC complaint makes the following factual allegations about this pay-for-delay settlement:

In 2010, Endo and Impax illegally agreed that until January 2013, Endo would not compete by marketing an authorized generic version of Endo’s Opana ER. In exchange, Endo paid Impax more than \$112 million, including \$10 million under a development and co-promotion agreement signed during the same period. Endo used

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this period of delay to transition patients to a new formulation of Opana ER, thereby maintaining its monopoly power even after Impax's generic entry. In 2010, Opana ER sales in the United States exceeded \$250 million.

In May 2012, Endo and its partners—Teikoku Seiyaku Co. Ltd. and Teikoku Pharma USA, Inc.—illegally agreed with Watson Laboratories, Inc. that until September 2013, Watson would not compete with Endo and Teikoku by marketing a generic version of Endo's Lidoderm patch. In exchange, Endo paid Watson hundreds of millions of dollars, including \$96 million of free branded Lidoderm product that Endo and Teikoku gave to Watson. As a result, Endo illegally maintained its monopoly over Lidoderm. In 2012, Lidoderm sales in the United States approached \$1 billion.

Endo and Watson illegally agreed that, for 7½ months after September 2013 (including the 180-day first-filer exclusivity period for which Watson was eligible), Endo would not compete by marketing an authorized generic version of Lidoderm. This agreement left Watson as the only generic version of Lidoderm on the market,

“Settlements between drug firms that include ‘no-AG commitments’ harm consumers twice—first by delaying the entry of generic drugs and then by preventing additional generic competition in the market following generic entry.”

— FTC CHAIRWOMAN EDITH RAMIREZ

substantially reducing competition and increasing prices for generic lidocaine patches. As a result, Watson made hundreds of millions of dollars more in generic Lidoderm sales.

The complaint also names Allergan plc, the parent company of Watson, and Endo International plc, the parent company of Endo Pharmaceuticals Inc.

With the complaint, the commission also filed a stipulated order for permanent injunction against Teikoku Seiyaku Co., Ltd. and Teikoku Pharma USA, Inc., settling charges for those two defendants. Under the stipulated order, the Teikoku entities are prohibited for 20 years from engaging in certain types of reverse-payment agreements, including settlements containing no-AG commitments like those alleged in

the complaint, which on its face is extraordinarily heavy-handed given that the Supreme Court has not said that all reverse payment agreements are per se antitrust violations. The agreed-upon order preserves Teikoku's ability to enter other types of settlement agreements in which the value transferred is unlikely to present antitrust concerns, such as those providing payment for saved future litigation expenses.

The commission vote to file the complaint was 3-1, with Commissioner Maureen K. Ohlhausen voting no and issuing a dissenting statement in connection with this vote. In her dissent, Commissioner Ohlhausen explained that she did think there was an antitrust violation but disagreed with seeking disgorgement from the defendants. 📌

What to do about Alice? (cont. from page 41)

and many of them deserve to be patented (themes of his recent op-ed article published in *Re/code* titled, “The Downside of Making Innovation Look Easy”).

So where do we go from here? Schecter says it may be time to get serious about the need for Congress to step in with a legislative fix to 101. Although former United States Patent and Trademark Office Director David Kappos has reportedly recently called for 101 to be abolished, Schecter told the audience he didn't think we have to go that far. “We could just amend it to fix this problem. I don't think we necessarily have to abolish it.

“We are at the point where I think we need legislation,” he said. “This is a golden goose industry... don't let the courts mess it up.”

I agree. The Supreme Court has embarked on a clearly anti-patent trajectory

“Does it strike you as odd that an invention could start its life as something that is patent eligible and then become so popular that it is no longer patent eligible? That doesn't make sense to me.”

—MANNY SCHECTER

over the last five years, and the federal circuit seems unwilling (or perhaps just unable) to muster the energy to apply the *Mayo-Alice* framework with an eye toward the subtleties each new innovation requires. Instead, the federal circuit—and,

consequently, the overwhelming number of district courts—seem to be channeling the Supreme Court and striking down patents with alarming frequency, grossly over-applying the abstract idea doctrine to find things that are clearly not abstract to somehow still be abstract within the meaning of the undefined doctrine set forth by the Supreme Court.

Over the next few months, we will learn whether the federal circuit will be willing to find truly innovative computer-implemented innovations patent eligible or whether we have a de facto rule that software is patent ineligible. If the circuit does not change course soon, the only option will be a legislative fix to 101—despite the risk that will bring and the reality that new legislation doesn't guarantee the Supreme Court will follow the law any more than it does now. 📌

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Samuel Ginn College of Engineering
1210 Shelby Center
Auburn, AL 36849
Troy Ferguson
twf0006@tigermail.auburn.edu

Invent Alabama
Bruce Koppenhoefer
137 Mission Circle
Montevallo, AL 35115
(205) 222-7585
bkoppy@hiwaay.net

Arizona

Carefree Innovators
34522 N. Scottsdale Road
Scottsdale, AZ 85266
ideascouts@gmail.com
www.ideascout.org

Inventors Association of Arizona, Inc.
Laura Myers, executive director
P.O. Box 6438
Glendale, AZ 85312
(602) 510-2003
exdir@azinventors.org
www.azinventors.org

Arkansas

Arkansas Inventors' Network
Chad Collins
P.O. Box 56523
Little Rock, AR 72215
(501) 247-6125
www.arkansasinvents.org

Inventors Club of NE Arkansas
P.O. Box 2650
State University, AR 72467
Jim Melescue, president
(870) 761-3191
Robert Bahn, vice president
(870) 972-3517
www.inventorsclubofnearkansas.org

California

Inventors Forum
George White, president
P.O. Box 1008
Huntington Beach, CA 92647
(714) 540-2491
info@inventorsforum.org
www.inventorsforum.org

Invention Accelerator Workshop
11292 Poblado Road
San Diego, CA 92127
(858) 451-1028
sdinventors@gmail.com

San Diego Inventors Forum
Adrian Pelkus, president
1195 Linda Vista, Suite C
San Marcos, CA 92069
(760) 591-9608
www.sdinventors.org

Colorado

Rocky Mountain Inventors' Association
Roger Jackson, president
209 Kalamath St., Unit 9
Denver, CO 80223
(303) 271-9468
info@rminventor.org
www.rminventor.org

Connecticut

Christian Inventors Association, Inc.
Pal Asija
7 Woonsocket Ave.
Shelton, CT 06484
(203) 924-9538
pal@ourpal.com
www.ourpal.com

Danbury Inventors Group
Robin Faulkner
2 Worden Ave.
Danbury, CT 06811
(203) 790-8235

Inventors Association of Connecticut
Doug Lyon
521 Popes Island Road
Milford, CT 06461
(203) 254-4000 x3155
lyon@docjava.com
www.inventus.org

Aspiring Inventors Club
Peter D'Aguanno
773 A Heritage Village
Hilltop West
Southbury, CT 06488
petedag@att.net

District of Columbia

Inventors Network of the Capital area
Glen Kotapish, president
P.O. Box 18052
Baltimore, MD 21220
(443) 794-7350
www.dcinventors.org

Florida

Inventors Council of Central Florida
Dr. David Flinchbaugh,
executive director
4855 Big Oaks Lane
Orlando, FL 32806
(407) 255-0880; (407) 255-0881
www.inventcf.com
doctorflinchbaugh@yahoo.com

Inventors Society of South Florida
Alex Sanchez, president
P.O. Box 772526
Miami, FL 33177
(954) 281-6564
www.inventorssociety.net

Space Coast Inventors Guild
Angel Pacheco
4346 Mount Carmel Lane
Melbourne, FL 32901
(321) 768-1234

Tampa Bay Inventors' Council
Wayne Rasanen, president
7752 Royal Hart Drive
New Port Richey, FL 34653
(727) 565-2085
goodharbinger@yahoo.com
www.tbic.us

Georgia

The Columbus Phoenix City Inventors Association
Mike Turner, president
P.O. Box 8132
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