MAY 2026 Volume 42 Issue 05

Inventors DIGEST

KIDS TECH WITH FREEDOM AND SAFETY?

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A Solar Energy Light

Monique Dyers is creating a path for accessible renewable energy through her company's software tool

A conversation with a farmer in need led Monique Dyers to solve a common problem for landowners interested in solar energy.

"We received a call from a farmer who was struggling to generate income from her land. She was trying to figure out if solar development could provide a new opportunity and save her land," Dyers said.

As her consulting team prepared a proposal for a feasibility study, members found the cost was out of reach for the farmer. But they also discovered that the assessment process itself was often too expensive and time-consuming, particularly for small landowners.

Dyers and her business partner realized they could develop an easier way. Together, they created EmpowerSun Solutions, a software tool that allows landowners to receive a quick and affordable analysis of their land's solar feasibility potential.

> **"Disadvantaged communities are often at the front lines of climate change impacts, yet they're the last to benefit from the clean energy transition."** —MONIQUE DYERS

Since its founding in 2024, EmpowerSun Solutions has helped landowners in the United States access the economic benefits of solar energy. The company has received national recognition as a finalist for the American-Made Solar Prize Round 7 sponsored by the U.S. Department of Energy, and as the winner of the competition's Justice, Equity, Diversity, and Inclusion Contest for spurring solar innovation in underserved communities.

Opposite page: Monique Dyers speaks at the DOE Energy Justice and Equity Summit.

For Dyers, the company is a culmination of more than 20 years working as an engineer dedicated to sustainability.

We recently spoke to her about her inventor's journey, learning how she became an entrepreneur and what ignited her passion for equitable renewable energy.

Can you describe how EmpowerSun Solutions works?

EmpowerSun is a software tool that allows landowners to visit our website, enter their address, parcel number, or coordinates and instantly receive a preliminary analysis of their land's solar feasibility potential—all for a fraction of the cost and time that it would typically take. This tool ultimately provides insights into estimations of energy production, projected capital costs and operating costs.

We find that a lot of landowners are interested in leasing their land to developers, so we also provide them with insights on what they can expect from an annual lease payment if they choose to not own and operate their solar project but lease their land.

What kind of impact have you been seeing from your work?

For us, it has always been about lowering the barriers to entry and increasing transparency so that communities can make empowered decisions that are ideal for them and their families. In one year alone, we helped underserved landowners conduct feasibility studies on over 5,000 acres of land.

What inspired you to focus on social environmental impact as an engineer?

I've always seen engineering as a bridge between

ideas and impact throughout my career. It's not just about the technical work that we do, but it's about problem-solving for real people in real communities. Engineering can ultimately transform sustainability from a concept into reality by designing systems that are not only efficient but equitable.

You're originally from New Orleans. How did growing up there influence your career trajectory?

Growing up in poverty in New Orleans, I saw firsthand how large energy bills could consume a significant portion of a family's income. It's something many people don't think about: having to choose between putting food on the table or keeping the lights on.

Can you describe when you realized that your engineering work could make an impact on underserved communities?

After college, one of my first jobs was with Caterpillar. I worked in a manufacturing facility, designing diesel generator set engines used for backup and standby power. I had the opportunity to develop and see a product throughout its full life cycle, from designing it as an engineer to seeing it being manufactured in the facility in which I worked.

Most of our designs were used by hospitals, office buildings or facilities that ultimately wanted to have gensets—which are combined generators and engines—as standby power in the event that electricity was lost.

In fact, I spent some time in St. George, Bahamas, where the genset that I designed was the main source of power for that island. It was one of the first instances where I saw that the work that I did truly helped supply power and a livelihood to a community.

One time, our genset needed repair. Seeing the loss of electricity and the impact that it had on the community was truly a changing moment for me and definitely touched my heart.

How did entrepreneurship accelerators help EmpowerSun Solutions take off?

When we had an opportunity to participate in VentureWell's Aspire Climatetech program, it truly changed the trajectory of our business. Having many experienced investors that were willing to provide their time to us, offer advice and provide feedback on our business plan and pitch decks truly changed the path of EmpowerSun.

Accelerators are important, because I think the journey of entrepreneurship can sometimes feel lonely. To meet other entrepreneurs who are going through similar experiences is always very powerful.

What kinds of renewable energy barriers have you seen different communities face?

We have supported feasibility studies for Tribal entities from southern Colorado to Alaska.

Most of the barriers to entry were around uncertainty and just not knowing how to be a part of the clean energy transition. A lot of these communities had renewable energy developers knocking on their doors, interested in their land. Even if they wanted to lease their land, they just didn't have the insights and understanding to know what their land was worth.

PHOTO COURTESY OF MONIQUE DYERS

Dyers (left) speaks with Rep. Hakeem Jeffries (D-N.Y.) at the 2024 ACORE Gala and Policy Forum.

With our software tool, we are empowering them to say, "Hey, I'm interested in leasing my land," or "I think there is value for me to develop it myself or co-develop it with someone else."

Are you finding correlations between underserved communities and the impacts of climate change?

Disadvantaged communities are often at the front lines of climate change impacts, yet they're the last to benefit from the clean energy transition. These communities consistently experience a higher energy burden, often spending a larger share of their income on basic energy needs.

The high energy costs, combined with the disproportionate impacts of climate change—like increased rates of asthma and other health conditions—further compound the challenges they face. These are very vulnerable communities that would truly benefit from renewable energy being developed within their communities.

We've traditionally seen that a lot of renewable energy development may occur, but these communities don't have a seat at the table. They're not the individuals making the decisions, or they're not benefiting financially. With our tool, we're hoping that we're able to correct that.

Are there skill sets or mindsets you think are essential to become a successful innovator or entrepreneur?

Things don't always go as planned, so being open to change and willing to pivot when necessary has been essential—especially in a field like the clean energy space. As entrepreneurs, when you pivot to a new innovation, my rule of thumb is to give yourself six months to truly give it your all within that space of innovation.

And when focusing on a new business opportunity, use those six months to reevaluate and determine: How did this go? Am I finding success? Do I need to redirect myself and my service and offerings?

I think failure is sometimes a part of the process for all of us. But I also believe this is where the learning happens, and I don't shy away from that. Innovation is truly about problem solving and finding meaningful solutions to some of our challenges, which is what we did with our software for EmpowerSun Solutions.

What are some challenges and opportunities you see for solar power?

I truly believe that we're at a critical crossroads within the renewable energy space.

One of the biggest challenges will be modernizing our aging energy infrastructure to integrate renewable energy sources to scale. Also, we need more grid reliability and new energy sources to meet the growing demands and needs of data centers and AI.

Another major challenge is political uncertainty. It creates instability within the market, which ultimately disproportionately impacts smaller developers, landowners and communities that already face barriers to entry.

Despite a lot of these challenges, I'm really optimistic about the trajectory of the renewable energy sector. We're seeing rapid advancements in technology—particularly in solar, which is not only one of the most scalable clean energy solutions but also the fastest to deploy. When combined with battery storage, it becomes a powerful tool to meet our growing energy demand..

Details: lemelson.org/invention-notebook

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Contents

May 2026 Volume 42 Issue 5

They Said What?

13 "'The man who almost destroyed the planet' is in the National Inventors Hall of Fame."

17 "You don't have to see the logo. You don't have to read a label. You don't even have to be thirsty. You just know."

29 "The list of famous Romanian comedians is nonexistent, but Andrei Iancu gets an honorable mention."

17

28

QUICK READS

18

Features

Inventor Spotlight

Departments

10 Years, and Numbers Bigger Than Mine

This issue of *Inventors Digest* marks the completion of my 10th year as editor-in-chief.

I will always be grateful to our publisher, Louis Foreman, for the opportunity he afforded me with that phone call on April 30, 2016, while I sat in a Charlotte urgent care for a softball injury. I'm still out there, and so is the magazine through 41 years.

With the skillful and invaluable help of Art Director Carrie Boyd, we have educated and motivated and celebrated our way through some challenging times, including the COVID nightmare. These numbers highlight some of our story:

50 The number of covers with a woman or girl, out of 120 overall. That's a .417 batting average, folks (41.7 percent)—reflective of my mission since Day 1 to celebrate and motivate women inventors, who at last count appeared on only 18 percent of all U.S. patents.

This hasn't just been about covers. Most of our regular contributors now are women, with many stories about their inventing accomplishments.

85 By my (long) unofficial count, that's the number of women interviewed in *ID* during the past 10 years by Edie Tolchin—who has consistently done more than anyone to celebrate female inventors in this publication and whose byline has appeared in every issue. (She has interviewed 40 men.) Edie, Jack Lander, IPWatchdog CEO Gene Quinn and Don Debelak have been respected constants in this magazine for decades.

590 The number of questions and answers in our monthly What Do You Know? quiz that I launched in my third month on the job. (The first question, in August 2016, involved my hometown Cincinnati Bengals.) This has been part of our mission to entertain and stoke the curiosity of inventors and non-inventors.

During the past 10 years, we've sought new ways to be informative and inclusive with both serious and hopeful inventors while responding to their needs—most notably through the fairly recent addition of a visually striking, streamlined, content-rich website at inventorsdigest.com. I know I speak for everyone involved with *Inventors Digest* by saying thank you for your support of both the magazine and the American innovative spirit.

—Reid
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AI Company Sues...AI Company

Artificial intelligence's powerful role in health care—providing more confident diagnoses, faster care for emergencies and more—has spawned a wave of companies that compete in this sector. So it may have been inevitable that intra-AI lawsuits would become part of its heartbeat.

Mountain View, California-based Heartflow,, which makes AI tools to analyze cardiac images, announced on April 13 a patent infringement lawsuit against Denver, Colorado-based Cleerly, which also applies AI to cardiac CT images to quantify plaque and assess long-term risk of heart disease. At issue is whether the founder of Cleerly, who was a consultant to Heartflow for five years, stole some of the latter's innovations.

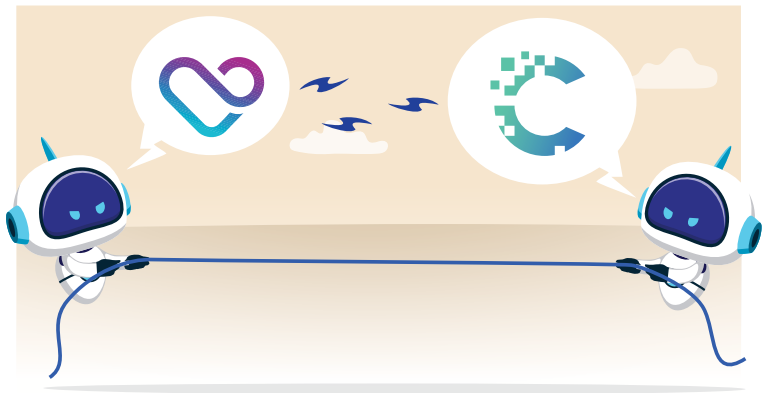
"After gaining intimate access to Heartflow's revolutionary cardiovascular diagnostic technology, trade secrets, and confidential business information—and while still bound by his contractual obligations to Heartflow—Dr. (James) Min, without informing his colleagues at Heartflow, incorporated Cleerly and launched a competing enterprise built upon Heartflow's pioneering innovations," the lawsuit read. It charges infringement on six of its patents.

In a statement to *MassDevice*, the Cleerly CEO countered clearly. He said the company is "confident in our extensive and well-established intellectual property portfolio and the originality of our technology."

Heartflow was founded in 2010 by a bioengineer and vascular surgeon team from Stanford University. Dr. Min worked as a consultant to Heartflow from 2012 to 2017—the company's "most formative years," the complaint said.

The lawsuit seeks unspecified damages. *Heartflow Inc. v. Cleerly Inc.* was filed in the U.S. District Court for the Eastern District of Texas.

—Reid Creager



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NATIONAL INVENTORS MONTH

ID Extra Coverage

How can it be possible that we're approaching the 30th anniversary of National Inventors Month?

Our 2026 celebration of all things inventing and innovation—launched in 1998 by *Inventors Digest*, the United Inventors Association of the USA and the Academy of Applied Science—will include bonus online material on **inventorsdigest.com** throughout May:

- The latest USPTO news, including a recently announced reduction in patent backlogs;
- *Inventors Digest* whittles down *Time* magazine's list of 50 Worst Inventions to our own Top (Bottom?) 10;
- Recent comments at IPWatchdog LIVE by inventor, futurist and technologist Jason Alan Snyder regarding the public's misunderstanding about AI and its limitations.

INVENTING 101

Being Your Own Middleman

BY DON DEBELAK

"Cutting out the middleman" is often seen as a positive in business transactions. But for inventors, being a middleman can be a good thing.

What makes this strategy different from most inventor strategies is that the inventor acts as a middleman for the concepts he or she originates. That person enlists one company to manufacture the product and another to sell it.

So, rather than just licensing an idea to another company, which can be difficult, inventors retain control of their concepts. The inventor can make more money than would be possible with licensing agreements and reduces the cost of introducing new products.

In effect, these inventors are virtual entrepreneurs, creating the concept and getting others to execute it for them.

The virtual advantage

A virtual inventor strategy has five major benefits:

- It gives each product a large distribution system, which accelerates sales.
- The inventor's investment is lower, because he/she isn't responsible for paying the costs required for manufacturing, marketing or distribution.
- The inventor can introduce two, three or four products per year instead of one every three or four years--the maximum most undercapitalized entrepreneurs can handle.
- Because the inventor controls how the product is manufactured, he or she can monitor product quality.
- The inventor makes more money than with a straight royalty deal.

If inventors opt for the more traditional route of setting up their own manufacturing and distribution company, they take on more risk and expense. But by letting go, inventors shoulder less risk and make more money. They leverage other people's time, organizations and resources to multiply their own earning power.

It's show time!

The most important step in the virtual inventor approach is to have someone with a proven track record sell your product. You›ll have no trouble lining up manufacturers if you can show them you have a contract or agreement with a reputable marketing firm.

Trade shows are the best place to find marketing partners. You can look at companies' products, see how they're sold and meet key people at companies that fit your product.

Most industries have both national and regional trade shows you can attend to find these partners. Larger libraries have at least one trade show directory that lists trade shows in your area and industry, or you can log on to the Trade Show News Network (tsnn.com).

Appeals to manufacturers

You'll find it's easier to get a manufacturer with the virtual approach than with a standard licensing agreement because it means a lot less risk for the manufacturer.

VITAL VOCABULARY

reasonable particularity

We picked up this lawyerly term during a panel discussion at IPWatchdog LIVE 2026. It refers to a standard that is a key requirement for identifying trade secrets. It stipulates that plaintiffs must clearly and specifically describe the information they claim as a trade secret and why it derives economic value from not being generally known or accessible.

Beware Trademark Genericide

Suicide. Genericide. Both have that "killing" or "killer" suffix, and it isn't a coincidence.

When applying for a trademark, choosing a name that is or becomes generic and not distinctive can be harmful or possibly deadly from an intellectual property standpoint.

Select brand names that are unique, creative and clearly distinguish the product or service from competitors. Look for names that go beyond describing the product or service. Names that only offer information about the product can be difficult to register.

Your company should also ensure consumers are educated about proper trademark usage, so the brand name is used in conjunction with a product description rather than as the product name itself. You also must be vigilant about preventing unauthorized use that could lead to a loss of exclusive rights, and keep current on trademark renewal.

An added challenge for trademark seekers is ensuring that the name doesn't become generic over time—an ironic penalty for becoming too well known.

"Escalator" is now an example of genericide but was clearly a distinctive term when inventor Charles Seeberger originated it in 1900 to describe his new moving staircase design. He registered the trademark, and shortly after the rights to this invention and its name were acquired by the Otis Elevator Co.

But within a half-century, the term had become so commonplace that in a 1950 case, *Haughton Elevator Co. v. Seeberger*, the United States Patent Office deemed the term "escalator" generic because Otis had not protected and policed the term from becoming common language for moving staircases. Otis lost its exclusive right to use this term, leading to increased competition.

Other names found in court to have become generic and losing their trademark rights include aspirin, dry ice, cellophane, teleprompter, thermos, trampoline and videotape.

When a manufacturer agrees to a licensing agreement, he or she has to worry about prototypes, market testing, manufacturing setup, operating capital, sales and marketing costs, and possibly setting up a distribution network. Those are a lot of steps where something could potentially go wrong—and the product might not sell well even if the manufacturer completes all the steps. It's no wonder manufacturers can look at licensing contracts with a jaded eye.

Using the virtual approach, all the marketing company has to do is sell the product, and all the manufacturing company has to do is make the product.

Inventors who become virtual entrepreneurs can work from home or a small office, and outsource most of the tasks involved in their businesses.

In the virtual inventor system, everyone can win. The manufacturing partner increases plant production, the marketing partner has more products to sell, and the inventor makes a good profit.

Don Debelak is the founder of One Stop Invention Shop, offering marketing and patenting assistance to inventors. He is also the author of several marketing books.

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Freon Seemed Like a Cool Idea

Widely used refrigerant for decades in the 1900s was later found to deplete the ozone layer **BY REID CREAGER**

His display was invention as salesmanship, long before it became commonplace. And there was nothing ordinary about Thomas Midgley Jr., even the way he died.

The mechanical chemist and engineer was chosen by General Motors Research Corp. Vice President Charles Franklin Kettering to lead research on new refrigerants in the late 1920s. Refrigerators made in the past several decades used toxic gases ammonia, methyl chloride and sulfur dioxide as refrigerants. Methyl chloride leakage had resulted in several fatal explosions that prompted some Americans to keep their refrigerator in their back yard, presenting another set of hazards.

Midgley—aided by Kettering, according to theinventors.org and others—discovered a family of refrigerant compounds that included chlorofluorocarbons (CFCs) known to be colorless, odorless and most important, non-flammable.

In a 1930 demonstration for the American Chemical Society to show the non-flammable properties of the discovery, trademarked as Freon, Midgley inhaled the gas, breathed it onto a candle flame and blew it out. No explosion.

If Midgley made a wish before blowing out the candle, maybe it would have been that Freon was never invented. Even though the substance became a time tested "advance" in refrigeration for the next several decades, it turned out that its benefit to the planet was so much huffing and puffing.

Long ride to The Big Chill

General Motors and DuPont formed the Kinetic Chemical Co. to produce Freon in 1930. It didn't take long for compression refrigerators using Freon to become the standard across America, and later in car air conditioners.

(Many internet sources incorrectly state that Frigidaire was issued the first U.S. patent for the formula for CFCs—No. 1,886,339—on December 31, 1928. But this was the application

Freon, an invention through research led by Thomas Midgley Jr., helped bring refrigerators out of back yards starting in the 1930s.

date; the patent was not approved until almost four years later on November 1, 1932.)

In 1932, Carrier Engineering Corp. used Freon in the world's first self-contained home air conditioning unit, called an "Atmospheric Cabinet." By 1935, per inventors.org, Frigidaire and its competitors had sold 8 million new refrigerators in the United States using Freon made by the Kinetic Chemical Co.

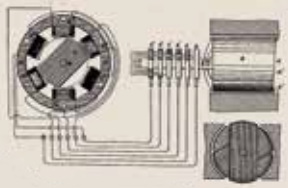
Many Baby Boomers recall Freon's status as a miracle product until the mid-1970s. Then, scientists discovered the sky was falling.

Maybe not exactly. But CFCs became known to deplete Earth's ozone layer, which protects the planet by absorbing harmful ultraviolet radiation.

Freon is no longer produced or imported in the United States, though older refrigerant devices can use it in recycled or reclaimed form. Recent discoveries such as hydrofluorocarbons, as well as natural ingredients isobutane and propane, are now used in refrigerators and air conditioners.

INVENTOR ARCHIVES: MAY

May 1, 1888: Nikola Tesla is granted one of his earliest and most influential patents. "Electrical transmission of power," U.S. Patent No. 382,280, says: "In carrying out my invention I employ a motor in which there are two or more independent energizing-circuits, through which I pass, in the manner hereinafter described, alternating currents, effecting thereby a progressive shifting of the magnetism or of the 'lines of force,' which, in accordance with well-known theories, produces the action of the motor."



An inventor to the end (117 U.S. patents), Midgley died long before his invention fell out of favor. He was stricken with polio in 1940 in his early 50s, according to *Encyclopedia Britannica*, and lost the use of his legs.

Midgley invented a hoist mechanism to help him get in and out of bed. On November 2, 1944, he was found tangled in the ropes and strangled by the device. A coroner ruled his death a suicide.

MEDIA ATTACKS: NOT COOL

Going down the YouTube "rabbit hole" as an idle pursuit is practically a national pastime. But if you're not careful, you may be burrowing into deep deception and even lies in someone's quest to make you clickbait.

Many online entries involving Thomas Midgley—widely credited with inventing Freon and Ethyl gasoline, both found to have dangerous impacts on the environment—reflect this truth-be-damned narrative, soiled by these headlines:

"The Man Who Accidentally Killed the Most People in History."

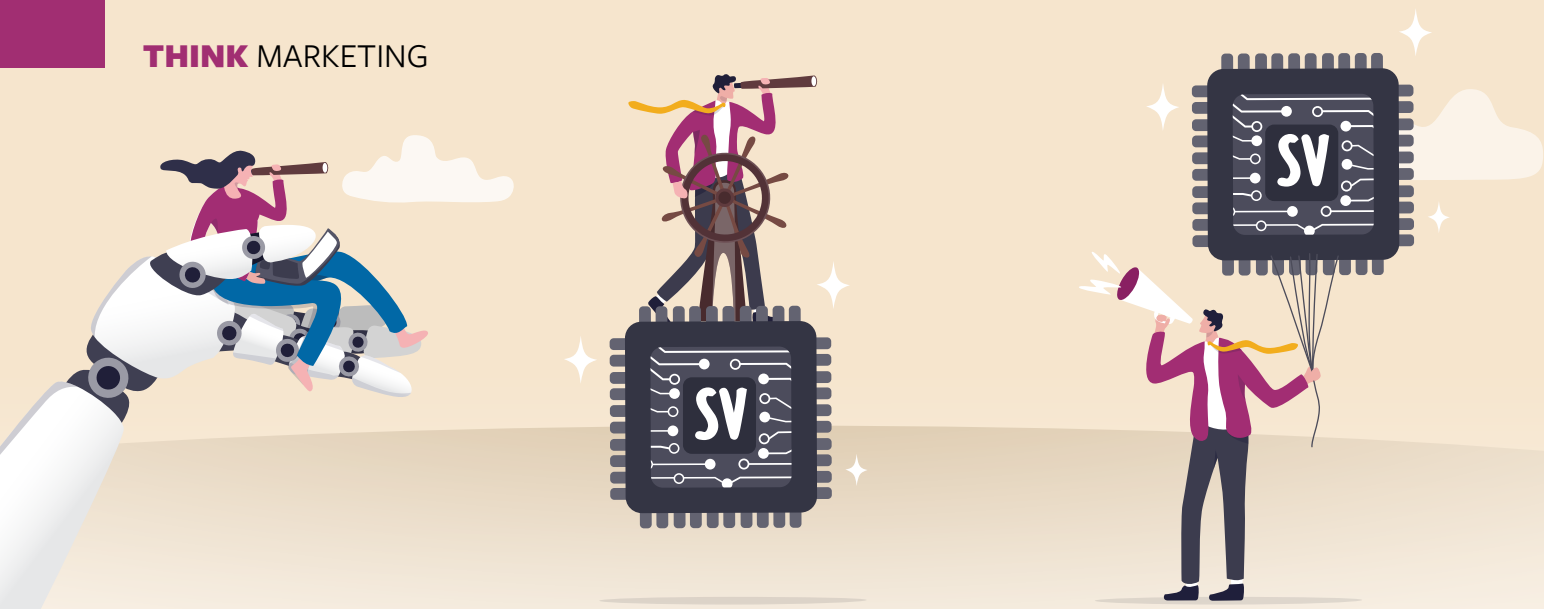
"The Most Dangerous Inventor in History."

"The Man Who Almost Destroyed the Planet."

Riddling the claims with bullets:

- Though generally credited with inventing Freon, Midgley had plenty of help. In addition to the reported assistance from Kettering, other researchers and engineers were involved. General Motors and the American Chemical Society, to name just two organizations, supported his efforts.
- For almost a half-century, no environmental problems caused by Freon were publicly cited. To single out Midgley for what turned out to be a dangerous compound is questionable at best.
- "The man who almost destroyed the planet" is in the National Inventors Hall of Fame, primarily for his discovery of no-knock gasoline that also solved an important problem at the time. In its first 25 years, Ethyl saved a billion barrels of oil and became an essential component of aviation fuel. The toxicity of lead was well known during Midgley's research—he even took a vacation to Miami in 1923 "to drop all work and get a large supply of fresh air"—but he was convinced the small amounts of lead particulates in engine exhaust would not threaten public health.
- Midgley had other inventions that helped humanity, including developing natural and synthetic rubbers.

Thomas Midgley Jr. was, most factually, a profit-seeking inventor/entrepreneur who spent his life innovating and trying to solve problems.



Silicon Serendipity

How the Valley's innovative and tech excellence developed, expanded and exploded **BY WILLIAM SEIDEL**

I was recently asked, "What is the magic of Silicon Valley? Why does so much happen there?"

The short answer is proximity, talent, capital and preparation. When talented people gather in relevant networks, backed with capital, unexpected encounters occur.

What feels like magic is actually a fortunate alignment of circumstances. This can happen anywhere. But in Silicon Valley, it's commonplace.

I attended a conference of executives, attorneys, scientists, engineers, academics and government officials focused on intellectual property. During introductions at a table of 12 strangers, the man across from me described his research in nanotechnology.

The fellow beside me was intently listening and said, "I own a bionanotech company here in Palo Alto." The professor to my left added, "I teach nanoscience and nanoengineering at Berkeley."

This was not a nanotech conference.

In a room of hundreds, three specialists in the same field, unknown to each other, sat at the same table. It was serendipity, and no one seemed surprised. It happens on hiking trails, in co-working spaces and even at Starbucks.

Bay Area brilliance

There is something to be said about the Chinese proverb, "right time, right place, right people."

In a time of great opportunity, when all resources comingle with the right expertise and are fueled by venture capital, magic can happen.

Mountain View, California, is considered the birthplace of Silicon Valley, because in 1939 Hewlett-Packard (now HP) was founded by two Stanford graduates.

Silicon Valley is part of the San Francisco Bay Area. The magic stems from infrastructure built over a century. The Bay Area includes 101 cities in nine counties and home to businesses that dominate many industries. Silicon Valley is 20 cities, 30 minutes south.

The Bay Area has deep-water ports and is the terminal for the Transcontinental Railroad, which opened the West to world imports and exports in 1869. Silicon Valley was a premier agricultural region and the world's largest canning and fruit-packing center.

Gold Rush opportunities brought people from around the world. The Bay Area became the financial center of the West—stemming from Gold Rush banking institutions, Wells

Fargo transcontinental communications, Pacific trade routes and the Pacific Stock Exchange. It is an enormous source of funding and continues to be the center of venture capital.

Military contracts poured resources into communications, microwave technology, radar, computer technology, electronics and physics. This was the foundation for many government and corporate laboratories such as Lawrence Livermore, NASA Ames and Sandia.

After World War II, the Bay Area expanded to the Valley. Each wave of technology built on earlier developments, with evolution from microwave and vacuum tube components (1950s) to semiconductors and integrated circuits (1960s) to personal computing (1970s-80s) to the internet (1990s) as software uses exploded. Social media (2000s) and artificial intelligence (exploding in the 2010s but dating to the mid-1950s) continued to build on the talent, academic and government partnerships driven by venture capital.

Shockley and the revolt

Stanford and UC Berkeley have produced generations of engineers and scientists, significantly contributing to the area becoming a center for research and innovation.

William Shockley brought silicon to Silicon Valley. He was one of the three inventors at Bell Laboratories in New Jersey who won the Nobel Prize in 1956 for inventing the transistor, a breakthrough that made modern electronics possible.

Frederick Terman, Stanford's dean of engineering, invited Shockley to participate in transistor engineering. Having grown up in Palo Alto, he returned to found Shockley Semiconductor Laboratory.

Demand for electronics was exploding, and government contracts were plentiful. Shockley recruited the crème-de-la-crème of talent.

There was no doubt Shockley was a scientific genius, but his management style was toxic. He was notoriously difficult, prone to violent tantrums, distrusted his employees, recorded phone calls and required employee lie detector tests. Collaboration was not permitted. Paranoia replaced openness.

In 1957, his top engineers revolted and left; Shockley called them the "Traitorous Eight." They could have gone anywhere but decided to move down the road and create Fairchild Semiconductor.

The cultural mutation

If there was one event that birthed the magic of Silicon Valley, it was the founding of Fairchild.

Fairchild was known for producing chips, but it really produced entrepreneurs. Fairchild became a template for openness, shared credit and risk taking that was a response to the tension Shockley created.

The "Traitorous Eight" were thought leaders who defined the valley's entrepreneurial culture, established the startup mentality and the venture-backed business model that shaped the industry.

Over 50 Fairchild spin-offs emerged from the "Fairchildren" who were founders of Intel, National Semiconductor, AMD and the creator of Moore's Law. They also included the best-known chipmakers Altera, LSI Logic, SanDisk, and many more grew from there.

Eugene Kleiner was a Fairchild veteran who founded Kleiner Perkins, the first venture capital fund. The rise of venture capital institutionalized the Fairchild culture. Instead of relying solely on banks or corporate funding, entrepreneurs could raise equity capital from investors who understood technological risk.

William Shockley's toxic management style spurred a mass exodus by his top engineers, who created Fairchild Semiconductor and birthed the magic of Silicon Valley.

Informality prevails

As the tale has it, a highly motivated electrical engineering graduate student was bored. Education was in the way of his motivation. He thought electronic games would be fun and dropped out of MIT—and into Silicon Valley.

With no contacts, he cased Atari and noticed the casual atmosphere and regularity of the lunch trucks. Knowledgeable and personable, he bought lunch, blended in with employees and walked in.

Quickly making friends, he assumed the position of MBWA (Management By Wandering Around). He engaged engineers, offered suggestions and quickly became the problem "go-to-guy."

Managers were assigning him projects, only to discover he did not work there.

Instead of firing him (even though he wasn't employed), the president admired his initiative and hired him. The attitude was that people could be trained in technical skills but not initiative. Silicon Valley has long rewarded initiative over credentials, action over process, and breaking the rules over following them.

Move fast, break things

This startup counterculture of "Move Fast and Break Things" has become the mantra for disrupting or obsoleting the incumbents.

Slow-moving corporations like General Motors are not going to change transportation in this environment, but Waymo, Uber and Tesla did.

The hospitality business model was disrupted by two roommates trying to pay rent and offering air mattress accommodations on their living room floor. This was the start of Airbnb.

eBay disrupted traditional retail and auction industries by directly connecting people for buying and selling goods. And not too long ago, Apple, Google and Facebook were startups in the Valley.

The pattern repeats: Small teams challenge large institutions, success attracts more talent, and talent attracts more capital. Capital accelerates experimentation and more growth. It is self-reinforcing.

Silicon Valley is not a place. It's a culture.

The most profound shift wasn't technological but cultural. It was a move from hierarchy to networks, from security to experimentation and from no fear of failing to succeed.

The Valley's culture prioritizes disruption and rewards risk taking with a flat organizational structure in an open atmosphere.

The culture of the area has always been non-conformist, free-spirited and creative. It is compounded by the "Move Fast and Break Things" philosophy that supports high-risk, early-stage startups and a high-intensity, 96-hour workweek.

A recent book, "Work Pray Code" by Carolyn Chen, is about how the Valley's work culture has replaced religion. Tech professionals look to work to fulfill the need for meaning, belonging, purpose and transcendence, which for them parallels religious fulfillment. It describes a deep sense of purpose in their work and a belief that their work is changing the world.

The openness and startup culture rewards collaboration, experimentation and accepts failure as a path to success.

The culture equates work with passion, not with labor in exchange for wages created, and a mission-driven mindset aimed at changing the world.

Without Shockley's brilliance, there would have been no semiconductor revolution in Palo Alto.

Without the toxic workplace he created, there would be no Fairchild. And without Fairchild, the culture that defines Silicon Valley might never have happened.

In Silicon Valley, serendipity happens anywhere and often enough that it feels normal. And it even happens at Starbucks.

William Seidel is an entrepreneur, author, educator, innovator and court-approved expert witness on marketing innovation. In his career and as owner of America Invents, he has developed, licensed and marketed billions of dollars of products.

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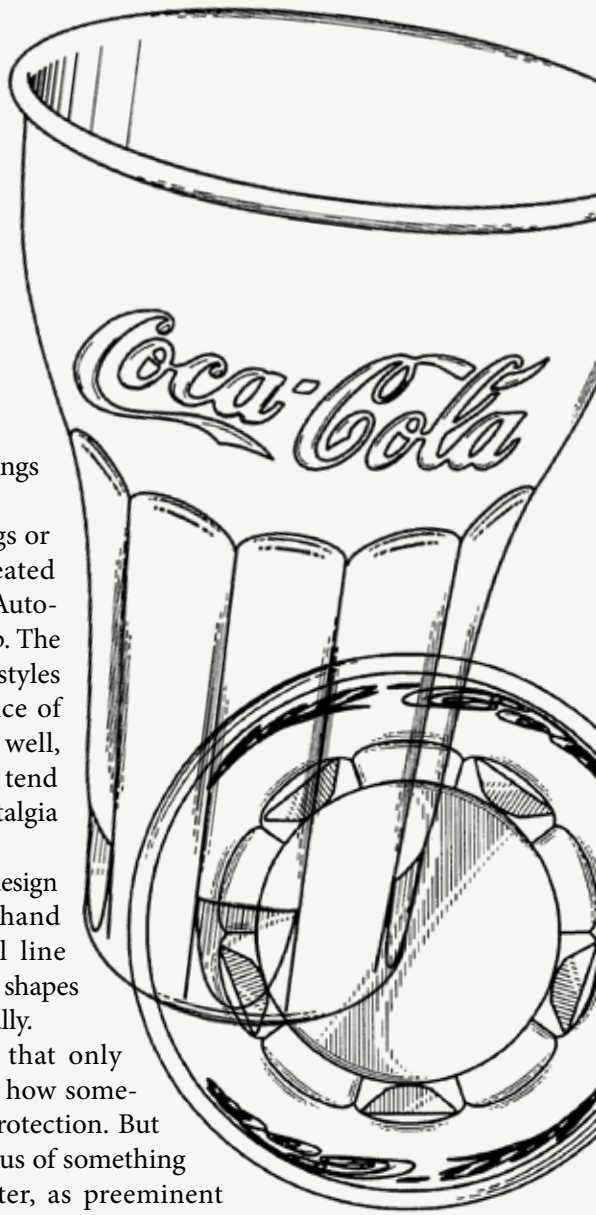
The Art of Refreshment

Coca-Cola glass design patent represents an instantly recognizable piece of Americana

BY CYNTHIA UNDERWOOD



There are certain objects in life that don't need an introduction. A Coca-Cola glass is one of them.

You don't have to see the logo. You don't have to read a label. You don't even have to be thirsty. You just know.

This is the kind of instant recognition that bypasses logic and goes straight to memory.

U.S. Design Patent No. D484,362, a Coca-Cola glass, doesn't claim a new way to hold liquid, or improve the taste of the soda or the efficiency of carbonation. It protects something powerful that we've seen so many times that we may not even notice it anymore: the visual appearance of the glass.

You don't have to see the logo. You just know.

Design patents exist in a different world than utility patents. They aren't about what something does. They're about what something looks like.

Design patents rely on the drawings to let the world understand what the inventor is trying to patent. The Coca-Cola glass drawings show the gentle curves, the fingerhold scallops and the Coca-Cola logo.

Early design patents were drawn by hand. They are pen-and-ink illustrations filled with stippling and shading. The drawings themselves are art.

Today, most drawings or reproductions are created digitally, usually with AutoCAD. The lines are crisp. The shading is spare. Both styles describe the appearance of the invention equally well, but the early drawings tend to evoke feelings of nostalgia of the handmade.

The Coca-Cola glass design patent appears to be hand drawn, with beautiful line work that describes the shapes of the glass so wonderfully.

It's easy to assume that only complex inventions of how something works deserve protection. But design patents remind us of something important: looks matter, as preeminent design patent attorney Perry Saidman says.

The lesson here is that things we use every day, like a glass, can get a design patent.

Cynthia R. Underwood is a design patent examiner, painter and innovation advocate. She is co-creator of the "How Cool Is That?" video series, which highlights inventive objects and their stories. Her creative work is at cynthiaunderwood.com.

He and His Shadows

N.J. inventor's cardboard, printed, ecofriendly templates showcase collectibles and life moments **BY EDITH G. TOLCHIN**

My daughter, Dori Lewandowski, recently attended the Newburgh (New York) Toy and Collector Show with my 5-year-old grandson, Josh.

Because Dori's mom has been writing about inventors for most of Dori's life, my babe can spot a product that would make for a good story—and maybe even pick up a treasure for Josh at the same time.

Here is another Josh: Josh Piezas, the Cranford, New Jersey inventor of ShadowPop displays.

ShadowPop displays come in two main formats: a traditional shadowbox frame that slots a comic book-sized item as a background (above), and a shelf version (opposite page).

EGT: Please share your background. Did it help or hinder the creation of your inventions?

Josh Piezas (JP): I studied business at Emory University but have been a creative tinkerer and idea guy my entire life. I look at products through a marketing ("pitching") lens.

Formative jobs have included: selling and licensing "B" movies around the world; relaunching the BeDazzler (a home appliance used to attach rhinestones, studs and other decorative elements to clothing and accessories); starting an animation company; working for Martha Stewart launching her craft company; and working for NECA (the National Entertainment Collectibles Association).

EGT: What is a ShadowPop display?

JP: A ShadowPop display is an affordable, printed cardboard template that consumers assemble into various types of shadowboxes to showcase collectibles, memorabilia and life's treasures. ShadowPop is about using a modest amount of creativity to customize a display that glorifies and augments the presentation of your favorite items.

EGT: And they are ecologically advantageous. Please elaborate.

JP: Since a ShadowPop display is made from recycled fiberboard and uses water-based inks, it is an environmentally friendly way to showcase our treasures.

ShadowPop displays are recyclable and will not take up space in a landfill. Our fiberboard is Forest Services Certified (FSC), meaning it's tracked during processing and verified to originate from sustainable tree farms.

EGT: How many different products do you feature on your website?

JP: We have two main formats: a traditional shadowbox frame that slots a comic book-sized item as a background, and a shelf version. These are printed in various designs to help collectors showcase their treasures appropriately.

We also offer a variety of inexpensive accessories that help collectors attain their vision for what is displayed.

EGT: Any problems with creating prototypes?

JP: Solving problems that inevitably arise is the fun part. Initial prototypes consisted of cut-up, sturdy cardboard (from FedEx boxes) to determine if what I had in mind could

PHOTOS COURTESY OF SHADOWPOP

be realized with a quality consumers could accept as home decor.

In the R&D balancing act, we knew the design would require unavoidable front-facing gaps. It was critical to figure out how to eliminate those seams. We turned that potential negative into a desirable feature, as these minor but visible gaps are critical to securing a protective museum plate to the shadow box.

EGT: Where are you manufacturing? Any supply chain issues?

JP: ShadowPop is 100 percent made in the USA, and 100 percent made in New Jersey! We hope to remain a "Made in the USA" product, keeping the overhead low and logistics simple.

As long as we can offer consumers a meaningful value proposition, our goal is to use the resources available in the States.

EGT: Is there an age range (for use of the product by children)? Safety issues?

JP: ShadowPop was started as a way to display collectibles, memorabilia and life's treasures. Therefore, we initially had a more mature consumer in mind. However, the product has been wildly popular with youngsters, too!

The fully assembled cardboard product is very safe, and we often pitch ShadowPop as an amazing option for kids' rooms and/or college dorm room décor. Still, there are some small cardboard pieces that pop out during assembly,

"Initial prototypes consisted of cut-up, sturdy cardboard (from FedEx boxes) to determine if what I had in mind could be realized with a quality consumers could accept as home decor." —JOSH PIEZAS

and for this reason we do not promote the DIY item for young children to use.

The material is very safe, as our factory prints with water-based inks.

EGT: Have you had any difficulties with patenting your designs?

JP: We used an experienced patent firm to help with the design and utility patents: M&B IP. Ryan McCormick made the process smooth and understandable.

Throughout my career, I've been very involved in patenting products, so prior to bringing on M&B IP, I handled the provisional patent applications for the designs. This entailed generating the language around what the invention is and the illustrations and schematics that describe the invention.

The biggest challenge in a patent process is assessing the financial risk/reward profile for the business of monetizing the invention.

ShadowPops is a perfect display opportunity for 5-year-old Josh Lewandowski, Edie Tolchin's grandson.

EGT: What's up next? Will you be increasing your product line?

JP: Our product line is expanding to include specialty accessories that enhance the many ways a ShadowPop (display) is used. For instance, we offer acrylic ledges and shelves that increase the 3D-ness of items in the comic ShadowPop frame.

We have category-specific accessories to support big markets. For wrestling fans, we have a kit that turns the ShadowPop into a ring. We just launched the Flight Path System, an accessory that makes items, particularly action figures, look like they're flying or floating.

We offer a modified shelf display that includes mounts, so it functions as a building block minifigure showcase. This same display is also used as an action figure display when turned on the side and acrylic shelves are added.

There is a lot of variation on our base products—and more is coming.

EGT: What has been your biggest obstacle in product development?

JP: Because most of what we sell is sourced in the USA, our challenge in product development is being creative in finding ways to accomplish a design goal using off-the-shelf parts.

When working in China, often "specific use" pieces can be made at relatively low quantities, whereas in the USA, everything made that is custom has significant tooling charges. Having worked with China for decades now, it's easy to forget how extreme the cost structures can be for something as simple as a plastic vacform blister.

In the USA, we require tremendous volume to amortize the cost of some very basic tools. So, creativity with off-the-shelf components is highly valued.

EGT: Any advice for new inventors?

JP: Embrace research—what it is you think is the invention. Start out by Googling the concept to see if it's already out there. Then use the patent search tools of the USPTO.

Be creative in describing your invention during the search: Some things are linguistically hidden, but it's there.

If you are a serial inventor, familiarize yourself with the provisional patent application process. It's an economical way to enlist partners and prove out the value of your invention before embarking on the long and expensive utility patent journey.

Also, don't get too attached to the invention. Inventions are a way of solving a problem. Then we pass along the magic to you!

Details: shadowpopdisplays.com

Edith G. Tolchin has written for *Inventors Digest* since 2000 (edietolchin.com/portfolio). She is the author of several books, including "Secrets of Successful Women Inventors" (https://a.co/d/fAGIvZJ) and "Secrets of Successful Inventing" (https://a.co/d/8dafJd6).

1-2-3 Common Invention Questions Answered

BY BEN GREENBERG, FOUNDER OF INVENTIONS UNLIMITED
InventionUnlimited.com • Ben@InventionUnlimited.com

1 When should inventors start thinking about branding?
Much earlier than most realize. Branding isn't a logo; it's how people understand your product. The moment you start validating, you should also be learning how customers describe their problem. Those words become your brand. Strong brands are built from customer language, not marketing buzzwords. If people can't quickly "get it," they won't buy

2 What's the most common crowdfunding mistake inventors make?
Using crowdfunding as a funding tool instead of a validation tool. Successful campaigns are built before launch through email lists, testing ads and audience building. If you wait until launch day to see if people care, you're already too late. Crowdfunding doesn't create demand. It reveals demand that exists.

3 How do inventors know if they should license or build a company?
It comes down to risk tolerance. Licensing trades upside for safety; you let an established company handle manufacturing, sales and distribution in exchange for royalties. Building a company offers bigger rewards but requires more capital and execution. There's no correct answer—only the one that matches how much control, risk and responsibility you're willing to take.

LIMITLESS BOUNDARIES

How G-Jay Yong built a global kids tech brand with a guided philosophy that marries freedom and safety

BY ALYSON DUTCH

The most important inventions rarely begin with certainty.

They begin with discomfort—and in this case, with fatherhood.

For G-Jay Yong, that moment came when his 2-year-old daughter struggled to pick up and use his 2kg Canon DSLR camera. What he saw became the first SKU for his camera designed specifically for children, which has morphed into myFirst: "The World's First Kids Tech Ecosystem."

At the time (2017), there wasn't really a proper kids' tech market; choices were either overly complex adult devices or flashing-lights-and-plastic toys. For Yong, the lack of truly creative kids tech, combined with parental demands for control, signaled a clear market opportunity.

"That's where I decided to develop an ecosystem of products to help kids explore creativity," he said, "while enabling families to develop healthier tech habits together.

"I call it the 'Explore Together' mindset."

When his daughter requested a smartwatch, his concept expanded. Yong understood what many parents—and frankly, many product developers—don't fully confront: the fact that giving a child a connected device isn't just a purchase decision. It's a philosophical one.

It's about access, exposure and control in a world where even adults struggle to manage their own relationship with technology.

That tension didn't just spark a product. It sparked a category.

Major mindset shift

Before myFirst, Yong wasn't chasing trends. He was building systems.

An unusually ambidextrous-brained human, his schooling was in electrical and computer engineering; he also excelled in the creativity and functionality of architecture.

His early career was deeply technical, focused on solving problems at the component level. But while still in university, something shifted as people problems became a primary impetus and technology second.

G-Jay Yong's "Explore Together" mindset is represented in his products, featuring the myFirst Fone S3 watch at far left and far right in addition to the myFirst Camera Insta Lux (second from left), myFirst Frame Clario (third from left) and myFirst Camera Insta Prinx Mini.

That curiosity turned into his first company, Singapore-based Gajah International. The hardware incubator business eventually scaled to $80 million in revenue, producing e-book readers like InkCase and operating at a global manufacturing level.

The results marked a highly unusual feat for a first try in entrepreneurship: He had no MBA, not even any formal business training.

The leap from builder to founder is not an easy transition for most. Some never make that jump. For Yong, it was a mindset shift—from focusing on making a widget itself to focusing on a problem for a specific population—then developing and owning the entire system around it.

First insight: The market

That moment when his young daughter wanted to create with his camera required a rethinking of everything: how a camera fits into little hands, a growing mind that needed guidance. His myFirst Camera didn't just shrink an adult device but rethought the product entirely:

- A highly tactile, rubberized form that fits in small hands.
- Bright, expressive colors that touch kidster emotional nerves.
- Instant printing features to serve the way kids engage with physical output differently than adults.

"I decided to develop an ecosystem of products to help kids explore creativity while enabling families to develop healthier tech habits together."

With the closed, family-approved social network app called myFirst Circle, only approved contacts can message, voice, or video call without GPS tracking. Parents can choose exactly who is allowed to see their child's location, giving more control and privacy. CareCall automatically connects after three missed calls, letting you monitor your child's surroundings in an emergency.

The real inflection point came when he noticed that kids crave adult tech but cannot be fooled by baby toys. They wanted something that functions in the real world. But parents want a sense of safety for them as they emerge into that wild world.

Yong's "Eureka Moment" eventually defined the company's trajectory.

Parents don't want less technology for their kids; they want better technology. The issue wasn't screen time; it was how children were being introduced to digital environments.

That insight reframed everything. Instead of adding parental controls to existing systems, his company built an entirely new ecosystem:

- A closed, family-approved social network app called myFirst Circle.
- Messaging limited to trusted circles.
- Real-time parental alerts when boundaries are tested (imagine that, parents!).
- Instant parental permissions.

Anyone with children knows the fears of letting them freely explore in an unsupervised environment, especially a digital one. On the flip side, the point of growing up is to individuate, away from restriction. myFirst was built around guided access, not limitation.

The brand says what it does. myFirst is about a child's first click—on safer terms.

The slogan "Explore Together" is a philosophy that encourages families to guide how kids use technology rather than limit it entirely, fostering healthy digital habits.

3-generation check-in

In my world as leader of a PR company, where I help launch consumer products into highly competitive retail environments, there's a constant truth: The user is not always the buyer.

But myFirst does a great job of narrowing its target through a few levels of complexity.

Kids want freedom.

Parents want control.

Grandparents want to delight the kids, stay connected—and respect the boundaries set by parents.

Yong's approach was to design for all of them, via consistent check-ins with each. This started with peer-parent conversations with friends, and eventually a more formalized query process with paying customers.

"We interview both kids and parents constantly," he said. "You can't fully satisfy both. You have to strike a balance."

This defined a product that has enough freedom to engage kids and enough structure to reassure their caretakers.

For inventors, this is one of the hardest—and most valuable—lessons: Look beyond the end user. It may be that your product serves opposing stakeholders.

Design for the user and market to the buyer. Your job isn't to choose a side; it's to architect the relationship between them.

DIFFERENT TAKE ON IP

IP is important, especially when you are first to market. Yong offers an alternate to the patent-first mindset and grounded perspective with a suggestion to start with trademarks first.

"I use patents selectively, because they're very expensive and used only in the case of defense. Focus on building the market, not litigating it. As for trademarks, a key regret: not securing trademarks globally early on."

For inventors navigating IP, this is a refreshing reminder: Protection is important, but momentum toward customers who need and can buy your product is everything.

What didn't work

Life's most significant lessons come in the form of what we might call failure.

Entrepreneurs—the tenacity-makers of the world—may loathe talking about those moments, as everyone prefers the shiny successes. But behind every polished product is a series of imperfect decisions and messy realizations.

Yong is candid about what didn't work for him: trying to do everything internally; waiting for the "right" moment; overthinking early-stage decisions.

"What doesn't work is overthinking everything. You have to move forward and adjust."

His approach evolved into a practical list that others can use: Keep the core product and vision in-house and stay flexible with everything else; make decisions quickly, even if they're not perfect; adapt operations as you scale.

Manufacturing in particular became a real-time lesson in adaptability—shifting production and building infrastructure quickly to meet demand, even when the system wasn't fully optimized.

For inventors, this takeaway is often terrifying but could not be any more poignant: Speed compounds. Perfection stalls.

The myfirst Camera Insta Lux doubles as a wireless photo printer.

Go-to-market strategy

In today's startup environment, the default advice is often: go direct to the customer, build your brand online, control the funnel.

Yong went the other way.

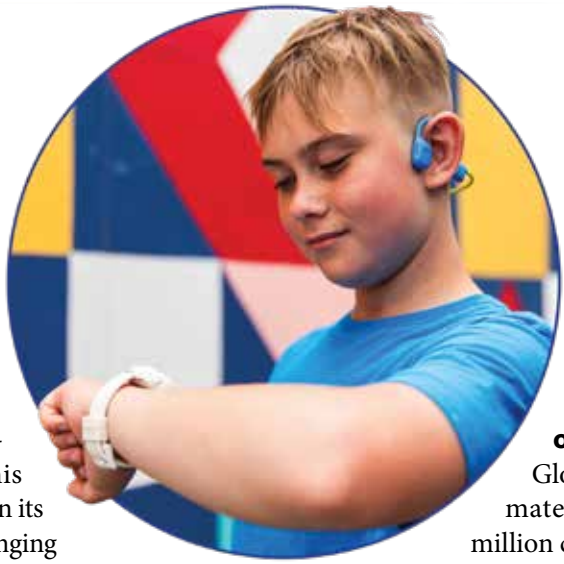
He chose B2B retail. Partners like Walmart, Sam's Club, Best Buy and others became core to the company's distribution strategy.

Why?

Because retail does something DTC does not: It creates immediate trust. And for this particular customer—parents buying technology for their children—that trust is everything. That trust now expands to one million families spanning 60 countries.

As someone who has spent decades placing products into those exact environments, I can tell you: Retail is not the easy path. It's (very) expensive. But it is often the fastest path to legitimacy.

Having such established corporate partners yields other benefits that further strengthen myFirst while redefining how kids experience technology, safely and purposefully.



The myFirst Headphones AirWaves' open-ear design keeps kids aware of their surroundings and are designed to work seamlessly with other myFirst devices, such as the Fone R2.

In March the company announced that it has raised over $8 million in its Series A funding round, led by Vertex Ventures Southeast Asia & India. This allows myFirst to "deepen its Kids Tech ecosystem, bringing together devices, connected services, and a secure social platform to support a child's first digital experiences across communication, creativity, and self-expression.

"The company will expand its presence across North Asia, the Middle East, the United States and Europe through retail and telco partnerships with partners such as Walmart and Best Buy, while enhancing myFirst Circle as a closed, ad-free social network designed specifically for children."

Team building

One of the most overlooked transitions in a founder's journey is hiring.

People are complicated. Every entrepreneur I've known will tell you that people will never stop astounding you with surprises.

The best leaders delve deeply into their own strengths and weaknesses to better see the right people, instead of hiring those they simply like. This is a master class in and of itself.

Yong started as an internally driven, introverted engineer. But building a company required something entirely different that he successfully learned to do, by just doing it.

"I had to hire people who complemented my skill set. Operations. Business development. Growth. And—learning when to step back."

As the company grew, his role shifted from builder to leader. But he remained close to product decisions, using his technical background as an anchor while expanding the organization around him.

For inventors, this is often the breaking point: You are not building a product. You are building a system—and systems require people.

The people of our future

Globally, there are an estimated 700 million to 900 million children between ages 5 and 12, all in Yong's customer profile. These kids represent nearly a billion young users entering their first meaningful interactions with technology.

This age group sits at the critical intersection of curiosity and habit formation, where first devices like cameras, watches and tablets are introduced and where digital behaviors, boundaries and expectations are established—making it one of the most important and underserved segments in consumer tech.

Yong is one of the players scratching that itch in a responsible way—and a colorful, untraditional one to boot.

What makes myFirst compelling isn't just its product line but its philosophy. In an industry driven by more connectivity, more engagement, more features, Yong has built a company not around less, but around better: better technology for children that reduces exposure, chaos and risk while introducing the digital world in a guided, age-appropriate way where freedom and safety coexist.

In doing so, he created something far more valuable: Trust.

This is where Yong's story lands for inventors. If you look at the world's most successful brands, every one is about the customer they serve, not just another new cool thing.

Alyson Dutch is a CPG product launch publicist and founder of Malibu-based Brown & Dutch PR Inc. (est. 1996) and Consumer Product Events (est. 2009). She also writes for *Forbes* and is the author of "The PR Handbook for Entrepreneurs" and "The P.O.M. Principle."

‘Our Community’ Returns

IPWatchdog LIVE 2026 reunites prominent industry thought leaders

IT’S 6 YEARS OLD NOW, GROWING STRONGER THAN A BABY PIT BULL.

IPWatchdog LIVE 2026 welcomed many prominent voices in intellectual property at the Renaissance Capital View Hotel in Arlington, Virginia, March 22-24. IPWatchdog founder and CEO Gene Quinn and his wife, President Reneé Quinn, welcomed nearly 300 attendees who included retired judges, current and former USPTO officials, and many other influential people in IP circles.

Despite the weighty, sometimes complex matters discussed in panels during the event’s 2 1/2 days, the networking-rich atmosphere is friendly and inclusive. Gene Quinn referred to attendees as “our community” in final-day remarks—a reflection of the camaraderie and enthusiasm that are hallmarks of each gathering. *—Reid Creager*

PHOTOS BY LYLY PHOTOGRAPHY

Gotcha!

New IPWatchdog Masters Hall of Fame inductee's remarks include a stinging reminder for friend Gene Quinn

The list of famous Romanian comedians is nonexistent, but Andrei Iancu gets an honorable mention.

During lunch on Day 3 of IPWatchdog LIVE, the former USPTO director was one of three dignitaries presented with an IPWatchdog Masters Hall of Fame Award by Gene and Renee Quinn. Iancu's opening remarks were gracious and articulate before he reminded Gene Quinn—and the crowd of a couple hundred people—that written criticism never goes away.

With a deadpan that Bob Newhart would have admired, Iancu began reading from a harsh commentary of himself by Quinn that appeared on IPWatchdog on August 14, 2019:

"While Iancu probably doesn't deserve an F for his PTAB efforts, given that Congress delegated the director all the authority and discretion in the world necessary to institute petitions and run the PTAB, he easily deserves a D, with a downward sloping track heading toward a failing grade."

A smiling Quinn shook his head and tried to cover his face. His wife, sitting next to him, laughed to the point of tears as the crowd roared.

Iancu continued reading Quinn's blast: "The buck stops with him … the honeymoon needs to be over …"

This glorious/inglorious moment underscored two truths: Gene Quinn does not hesitate to go public with criticisms of anyone if he thinks it is warranted; and Andrei Iancu understands that criticism comes with the territory for all appointed and elected officials.

Also inducted were Joseph Allen, who served on the U.S. Senate Judiciary Committee and helped to get the Bayh-Dole Act signed into law; and former USPTO Director David Kappos—with no surprises in their comments. *—Reid Creager*

At **IPWatchdog LIVE 2026**: Left and right, respectively: IPWatchdog President Reneé Quinn continued her tradition of ringing chimes to announce the impending start of each discussion panel; the IPWatchdog LIVE team. Below left: Artists & Robots Cofounder and Chief AI Officer Jason Alan Snyder's keynote discussed "The Last Archive: How AI is Erasing What We Know."

Above: IPWatchdog.com Editor-In-Chief Eileen McDermott, who hosted a discussion on Section 103, listens to panelist Suzanne Konrad of SpencerFane; new exhibitor Inventions Unlimited's Brad Greenberg, Ben Greenberg and Thinh Tran. Bottom row, from left: Inventors Digest Editor-in-Chief Reid Creager and IPWatchdog CEO Gene Quinn; USPTO Deputy Director Coke Stewart's closing keynote drew a crowd.


IPWatchdog


HARNESS

BRIGHT IDEAS

Selfix

SELFIE CASE FOR IPHONE17 PRO MAX

selfixcase.com

Billed as the world's first selfie case for iPhone17 Pro Max, Selfix features include a real-time preview and touch to focus. Transform your selfies with 48MP and 4K clarity; expand your storage to 2TB instantly.

Shoot with just three steps: Press the Selfix button to activate the rear screen and rear camera; frame and preview yourself on the rear touchscreen; shoot with a tap on the phone.

A larger sensor and advanced night more are designed to deliver more clear and detailed selfies at night. Seamlessly switch between the 0.5x Ultra Wide and 8x zoom.

Selfix will retail for $129. It is to be shipped to crowd-funding backers in May.

TRETTITRE

WALL-MOUNTED VINYL,
CD AND CASSETTE SYSTEM

trettitre.com

Made for those who feel physical music isn't dead, TRETTITRE brings back vintage ways of playing music while displaying the system on a wall.

The system includes a wireless vinyl player, Bluetooth CD player and Bluetooth cassette player. Each player can be used by itself, but the players also share a common design so can sit together in the same space. The entire system can be displayed using a magnetic modular wall rack. The rack integrates magnetic alignment and wireless charging for the vinyl player, so the player can stay powered without visible cables.

With shipping to crowdfunding backers set for June, TRETTITRE will retail for $899.

SPESYN Tool 3

VERSATILE, SMART HANDHELD DRILL

spesyn.com

The makers of SPESYN say it delivers drill-press-grade precision. A snap-on Front Guide Module, dual guide rails and real-time depth sensing are designed to keep the drill bit perfectly perpendicular even on slippery surfaces and make blind holes and tapping clean, repeatable and fast.

SPESYN drills through wood, aluminum, acrylic, phenolic, glass and tile. Intelligent torque and pulse rotation cut threads automatically. One quick swap turns the drill into a screwdriver.

The basic core setup for users who already have their own bits and accessories will retail for $279, with planned delivery to crowdfunding backers in September.

"You can't use up creativity. The more you use, the more you have."

—MAYA ANGELOU

JOAT2.0

TITANIUM EDC TOOL FOR EVERYDAY FIXES

comandi.us

Combining multi-functionality and portability, JOAT 2.0 has more than 10 essential functions to keep you organized.

The Spring-Loaded Snap Lock is built to keep every module where it belongs. With a simple press, modules release smoothly. You can slide them out, switch them up and snap them back in within seconds.

JOAT2.0 weighs 97.3g—a little more than half the weight of an iPhone17. It also works as a pry bar, knife and nail file. The knife features a replaceable blade design, compatible with standard No. 11 replaceable blades.

The standard-issue JOAT 2.0, which will retail for $230, will be shipped to crowdfunding backers in July.

Is 'Patent Troll' Label Fading?

Rhetoric may be shifting toward an emphasis on patent quality and enforcement behavior **BY ANDREA L. ARNDT**

For more than two decades, few terms in intellectual property law have carried as much rhetorical force as "patent troll."

Used to describe entities that enforce patents without manufacturing products, the label has influenced court decisions, legislation, regulatory policy and public perception of the U.S. patent system. For inventors and companies that rely on patents to protect and monetize innovation, the critical question is whether this narrative reflects reality or oversimplifies a complex system.

The answer appears to be both.

The narrative's origins

The term "patent troll" gained traction in the early 2000s amid a sharp increase in patent litigation brought by nonpracticing entities (NPEs). NPEs owned patents but did not offer products or services, instead licensing or enforcing their rights through litigation.

Critics argued that some NPEs relied on vague or overly broad patents, particularly in software and business methods, to threaten costly lawsuits and extract settlements untethered from technological value.

By the early 2010s, NPEs accounted for most U.S. patent infringement suits.

Large technology companies argued that defending these cases diverted significant resources away from innovation and into legal costs. Advocacy groups noted the burden on small businesses receiving demand letters or facing nuisance litigation.

This framing resonated. The patent troll narrative offered a simple explanation for a multifaceted problem: opportunistic actors exploiting a flawed system.

Although the term was effective at driving reform, the label blurred distinctions among patent quality, enforcement methods and the legitimate role of licensing in innovation.

Legal and policy responses

Congress, courts and regulators responded decisively.

In 2011, the America Invents Act (AIA) introduced *inter partes* review (IPR) and related post-grant proceedings, enabling faster and less expensive challenges to patent validity at the U.S. Patent and Trademark Office. In parallel, the Supreme Court reshaped core aspects of patent enforcement before and after the introduction of the AIA:

- *Alice v. CLS Bank* (2014) narrowed patent eligibility for software-related inventions;
- *eBay v. MercExchange* (2006) constrained the availability of injunctions;
- *Octane Fitness v. ICON* (2014) lowered the bar for fee-shifting in exceptional cases;
- *TC Heartland v. Kraft Foods* (2017) curtailed forum shopping by tightening venue rules.

Collectively, these changes made patents easier to challenge and more difficult to enforce. The impact was significant.

Patent litigation filings declined after peaking in 2015, particularly among high-volume NPEs, and many asserted patents were invalidated early through IPR proceedings or dispositive motions.

From one perspective, these reforms succeeded: abusive litigation declined, and low-quality patents were removed from the system.

After a recent spike in NPE litigation, the USPTO emphasized patent quality and deterring abusive practices, through enhanced scrutiny of serial filers and stricter disclosure and certification requirements in post-grant proceedings.

The case against the label

For inventors and small patent holders, the patent troll label has long been controversial.

U.S. patent law does not require inventors to commercialize their inventions. Universities, research institutions, startups and individual inventors frequently rely on licensing to support innovation and technology transfer. Many lack the capital or infrastructure to manufacture products themselves.

Conflating nonpracticing status with abusive conduct risks delegitimizing lawful enforcement. In other areas of property law, ownership and licensing without personal use is not controversial. In the patent context, however, rhetoric has sometimes cast suspicion on patent owners solely because they lack production capacity.

At the same time, enforcement has become increasingly expensive and uncertain. Heightened pleading standards, early invalidity challenges, eligibility concerns and fee-shifting exposure have raised the cost of asserting even strong patents.

For many startups and individual inventors, enforcement is no longer economically viable, diminishing the practical value of patents.

An emerging consensus suggests the core issue is not who enforces patents, but how.

Realities, competing views

The effects of patent reform vary sharply by stakeholder.

Large technology companies often benefit from reduced litigation exposure and greater certainty around freedom to operate. For these entities, enforcement risk is generally manageable.

Smaller innovators face a different reality. Patents may represent their most valuable assets and primary leverage in negotiations or fundraising. When enforcement becomes unpredictable or prohibitively expensive, the deterrent and signaling value of patents

declines, potentially favoring large incumbents with scale and legal resources.

Critics of NPE enforcement argue that weak patents and opportunistic litigation impose real economic costs, even when claims lack merit. Defending a patent case can require substantial investment well before trial, and uncertainty alone may pressure defendants into settlements.

Opponents of the troll narrative counter that reforms targeting abuse can overshoot, discouraging investment in innovation-intensive industries where development timelines are long and commercialization is costly.

An emerging consensus suggests the core issue is not who enforces patents, but how.

Bad-faith conduct—vague demand letters, nuisance suits or litigation designed primarily to extract settlements—is widely viewed as harmful. Importantly, such conduct is not exclusive to NPEs.

Courts and regulators have increasingly emphasized conduct-based tools, including sanctions, fee shifting, heightened pleading standards and venue limitations. This approach targets abusive behavior directly while preserving legitimate enforcement rights.

Signs of shifting narrative

Recent trends suggest the patent troll narrative may be evolving.

After sharp declines following *Alice* and *TC Heartland*, patent enforcement activity showed a modest resurgence in 2024 and 2025. Third-party litigation funding has contributed to this increase, as funders typically require meaningful diligence on patent strength before committing capital.

At the same time, concerns persist about the predictability of the U.S. patent system. Continued uncertainty around patent eligibility, particularly in software and life sciences, raises questions about whether weakened enforcement could push innovation and investment abroad.

For inventors and engineers, today's landscape presents both risks and opportunities. Patents remain essential tools for protecting innovation and attracting investment, but enforcement strategies must adapt. High-quality drafting, precise claim scope and strong technical disclosure are more important than ever.

The patent troll debate is unlikely to disappear, but it is becoming more nuanced. By focusing on patent quality and enforcement behavior rather than labels, the legal system may be moving toward a more balanced middle ground—one that preserves accountability while restoring confidence that patents remain meaningful tools for protecting and rewarding innovation.

Andrea L. Arndt is a member of the Intellectual Property Practice Group at Dickinson Wright in Austin, Texas. She is a nationally recognized intellectual property attorney with extensive experience advising startups, Fortune 100 companies and market leaders on their intellectual property portfolios globally. Contact 737-484-5536 or AArndt@dickinsonwright.com.

3D Printing: Getting Started

Multi-featured machines are a bargain for a process that takes no special skill set **BY JACK LANDER**

You'll need three basic items to begin working with 3D printing: a 3D printer, of course; a 3D drafting instruction book; a 3D toolkit.

3D printers are priced from about $70 to $700. If you are skeptical about the features or quality of the lower-priced printers, several printers are offered between $300 and $400 on Amazon.com.

I'm not suggesting you buy yours from Amazon, just that it has a convenient, representative array of models. Note that Amazon has a rating for each model that typically is less than 70 percent. I suspect that this relatively low number is due to the relative infancy of the product rather than production defects.

3D drafting instruction books are available online or at bookstores for $20 or less.

3D printing is a form of additive manufacturing, in which there is no wasted material.

3D drafting is very different than the former T-square-and-triangle approach. The process is called "additive manufacturing"—distinguished from "subtractive manufacturing," in which material is removed using a band saw, milling machine and lathe.

In additive manufacturing, there is no wasted material. Our product consists of several thin layers of material, each shaped so that a profile from any point on the finished surface replicates the intended product.

For example, if the intended product is a cone, starting with the largest diameter as the first layer, it will consist of a series of thin, circular shapes, each slightly smaller in diameter until the final circle is a point.

You can imagine how much waste would result if you produced the identical shape from a solid bar using a lathe.

The series of circles can be produced automatically by programming the drawing to reduce each succeeding layer's diameter.

3D toolkits are readily available online. They are a timesaver by having at hand tools that are custom designed for the special operations of 3D printers. Toolkits are priced at about $20.

3D's many advantages

In case you aren't completely sold on additive manufacturing, I'll list a few of the ways you benefit from using it rather than subtractive manufacturing:

- The cost of machinery is much lower. A band saw, lathe and milling machine would cost at least $5,000 for a basic metal-working setup. Add to that the cost of drills, end mills and band-saw blades.
- Machine setup time is a fraction of that for subtractive machinery.
- Complexity of shape is simple, while often impossible using metal cutting tools.
- No special skills are required to become proficient.
- Reduced or eliminated assembly time.

The most impressive example I can imagine of a product made by 3D printing is that of a rocket engine!

Jack Lander, a near legend in the inventing community, has been writing for *Inventors Digest* for nearly a quarter-century. His latest book is "Hire Yourself: The Startup Alternative." You can reach him at jack@Inventor-mentor.com.

Venue Shopping

The shrinking landscape for patent asserters since *TC Heartland* and other developments **BY LOUIS CARBONNEAU**

In real estate, they say the three most important things are location, location, location.

Turns out the same is true in patent assertion—except the stakes are considerably higher and, unlike a house with good bones in a sketchy neighborhood, you can't exactly renovate your way out of a bad venue ruling. Your case is either in Texas, or it isn't, and I often have discussions with U.S. litigators who tell me that their decision to take on a certain case—or not—hinges in large part on where they can actually litigate the patents.

This month's deep dive examines the single most disruptive procedural development in patent law of the past decade: the Supreme Court's 2017 decision in *TC Heartland LLC v. Kraft Foods Group Brands LLC*, which rewrote the rules on where patent infringement cases can be filed and where this leaves us today.

But this isn't just a story about procedural gamesmanship; it's a story about what patent owners actually need from a court system: speed, expertise, reasonable costs and a fair shake.

Texas offered all four, which is why patent owners went there in droves. We'll trace what happened when the Supreme Court took away that option, and why the same forces that once drew patent owners to Marshall, Texas, are now drawing them to Mannheim, Munich, and the Unified Patent Court.

Patent owners need speed, expertise, reasonable costs and a fair shake from a court system. Texas offered all four, which is why patent owners went there in droves.

More important, we've built a comprehensive matrix of every published venue transfer decision originating from the Eastern and Western Districts of Texas since *TC Heartland*. Who tried to leave? Where did they want to go? Did they succeed? And what were the key factors that made or broke each motion?

If you are a patent owner (or advising one), this is the roadmap you need.

The *TC Heartland* quake

For the better part of three decades, patent owners enjoyed an almost embarrassing degree of forum choice. Under the United States Court of Appeals for the Federal Circuit's 1990 *VE Holding* decision, you could sue for patent infringement in essentially any federal district where the defendant sold products—which meant anywhere. And if you could file anywhere, you filed in the Eastern District of Texas.

By 2015, roughly 43 percent of all U.S. patent infringement cases were filed in the EDTX.

Now, let me be clear about something that the defense bar's "forum shopping" narrative consistently gets wrong. Patent owners didn't flock to Texas because juries there handed out candy to plaintiffs. They went because the EDTX offered what every litigant in the world wants: a faster time to trial, lower litigation costs than coastal districts, and judges who had developed genuine expertise in patent cases.

Remember, the United States has no specialized patent court at the district level, unlike Germany or China, which have designated patent chambers. In the EDTX, patent owners got judges who understood claim construction, knew how to manage a Markman hearing and moved cases on a rocket docket. Compare that to the Northern District of California, where

cases can languish for years, costs are astronomical, and there's a perception (not entirely unfounded) that the home team gets the benefit of the doubt when the defendant's campus is visible from the courthouse parking lot.

Patent owners in Texas weren't looking for an unfair advantage; they were looking for a fair shake.

The exact same motivations explain why the Unified Patent Court and the German national courts have become the venue of choice for patent owners on the other side of the Atlantic. The UPC offers what Texas once offered, and then some: low litigation costs (a fraction of U.S. federal court), predictable timelines, severely limited discovery (no American-style fishing expeditions), fast time to trial—and, critically, the real possibility of obtaining injunctive relief.

That last point cannot be overstated. In Europe, a patent owner who proves infringement can actually stop the infringer from selling products. In the United States, that remedy has become largely theoretical for anyone who doesn't manufacture competing products.

Is it any wonder that patent enforcement activity is migrating across the Atlantic?

After *TC Heartland*, a domestic corporation could only be sued for patent infringement in two places: where it is incorporated (for most tech companies, Delaware) or where it has committed acts of infringement AND has a regular and established place of business.

One important caveat: *TC Heartland* applies only to domestic corporations. Foreign companies can still be sued wherever personal jurisdiction exists, something to remember when your infringement target is headquartered in Seoul or Shenzhen.

TC Heartland said nothing about what constitutes a "regular and established place of business." Judge Rodney Gilstrap fashioned a four-factor test in *Raytheon v. Cray* that was, shall we say, accommodating to plaintiffs. The EDTX was going to be just fine, thank you very much.

The federal circuit thought otherwise. In *In re Cray Inc.* (September 2017), it established a far more rigorous three-part test requiring: (1) a physical, geographical location from which business is conducted (virtual spaces insufficient); (2) presence that is steady, uniform and methodical, not sporadic or transient; and (3) a place of the defendant owned, leased, or controlled by them, not merely an employee's home.

Translation for the non-lawyers: Your sales guy's apartment in Plano doesn't count.

Neither do servers. In the tragicomic saga of whether Google's servers constituted a "place of business," two EDTX judges looked at virtually identical facts and reached opposite conclusions.

Judge Ron Clark said no; Judge Gilstrap said yes. The federal circuit settled it in *In re Google LLC* (2020): Servers in third-party data centers are not a place of business.

The venue statute requires a human agent, not merely a machine humming away on a rack.

Judge Albright's rise/fall

If *TC Heartland* was an earthquake, the aftershock hit a small city in central Texas.

With the EDTX hemorrhaging cases, patent plaintiffs found a new home in the Waco Division of the Western District of Texas, presided over by Judge Alan D. Albright. The former patent trial lawyer, who took the bench in September 2018, made no secret of his desire to build a world-class patent docket.

By the first quarter of 2020, roughly 25 percent of all new U.S. patent cases were filed before a single judge in Waco, Texas—a city of 140,000 people better known for Dr. Pepper and a certain 1993 siege than for cutting-edge IP jurisprudence.

The appeal was simple. Filing in Waco guaranteed your judge; his standing orders promised trial in 18-24 months; and he was, to put it diplomatically, extremely reluctant to grant convenience transfer motions. The defense bar's term for this was somewhat less diplomatic.

Starting in July 2020, the federal circuit began systematically reversing Albright's transfer denials via writs of mandamus. By 2021, the court had issued 18 mandamus reversals, nine in the fourth quarter alone, calling one delay "egregious" and "blatant disregard for precedent."

The overall grant rate: approximately 56.5 percent on mandamus petitions against Albright—extraordinarily high for a remedy supposedly reserved for truly exceptional circumstances. The recurring errors: overweighting Waco's fast docket, underweighting witness convenience, overstating judicial economy, and ignoring where the accused technology was actually developed.

The most colorful case may be *In re Samsung* (2021), where patent owner Ikorongo Texas

LESSONS FROM THE VENUE TRANSFER SCOREBOARD

Tangible IP has compiled a comprehensive matrix of every published venue transfer decision originating from the Eastern and Western Districts of Texas since *TC Heartland*, covering the EDTX and all the Albright-era WDTX mandamus decisions.

This is not an academic exercise; it's a tactical resource. If you're considering filing (or defending) a patent case in Texas, these are the cases that will determine whether your case stays or goes.

You can access the full venue transfer tables at tangibleip.biz/12998/market-insights/location-location-location (click on "here," in red about halfway down).

The scoreboard teaches us that venue is no longer an afterthought but a strategic decision that can make or break an enforcement campaign.

Delaware is the new EDTX. Because roughly 65 percent of Fortune 500 companies are incorporated in Delaware, it has become the de facto default.

If you're suing a Delaware corporation, file in Delaware. Don't get creative.

If you want Texas, you need real connections—genuine physical presence, offices, employees, facilities. Remote workers don't count. Servers don't count. Car dealerships probably don't count.

And don't try to manufacture venue: The *Ikorongo* case taught that forming a Texas entity weeks before filing will affirmatively damage your case.

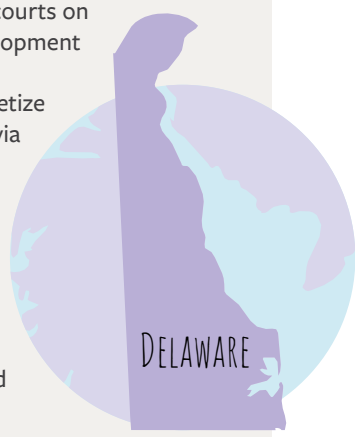
Where the technology was developed matters enormously. If the engineers and R&D are in northern California, transfer to the NDCA is almost a foregone conclusion.

Foreign defendants, however, remain the exception; *TC Heartland* applies only to domestic corporations.

Watch the Fifth Circuit. The *Clarke* and *Chamber of Commerce decisions* (both 2024) may signal a shift back toward greater deference to trial courts on transfer motions, a welcome development for patent owners.

Bottom line: If you want to monetize your patents, whether directly or via sale, venue strategy must be integrated into your enforcement planning from Day 1. Buyers, funders and litigators consider it an important factor in their decision process.

The margin for error is thin, the cost of getting it wrong is high, and the law is evolving.



LLC had been formed as a Texas entity just one month before filing suit, received assigned rights just 10 days before the complaint, and had zero witnesses in Texas. (One might call this the "you can't just rent a P.O. box in Waco" rule.)

The endgame came on July 25, 2022, when Chief Judge Orlando Garcia relented under pressure from Supreme Court Chief Justice John Roberts and issued a standing order randomly assigning new patent cases among 12 WDTX judges.

This reduced Albright's share from 100 percent to approximately 8 percent. Patent filings in Waco promptly fell off a cliff.

Enter the 5th Circuit

Just when defendants thought the landscape had stabilized in their favor, the Fifth Circuit weighed in. In *In re Planned Parenthood* (2022), it reminded everyone that "district courts have broad discretion in deciding motions to transfer," and overturning such rulings requires showing "clear abuses of discretion that produce patently erroneous results"—a warning shot across the federal circuit's bow.

Then, *In re Clarke* and *In re Chamber of Commerce* (both 5th Circuit rulings from 2024) clarified that a defendant seeking transfer must show the new venue is "significantly and actually more convenient," not just theoretically.

The net effect may make it somewhat harder to transfer cases out of Texas—a welcome development for patent owners whose venue options have shrunk dramatically since 2017.

Louis Carbonneau is the founder and CEO of Tangible IP, a leading patent brokerage and strategic intellectual property firm. He has brokered the sale or license of 4,500-plus patents since 2011. He is also an attorney and adjunct professor who has been voted one of the world's leading IP strategists.

Rejected. Now What?

Strategies and options for patent hopefuls, even after receiving an examiner's 'final' no **BY GENE QUINN**

Being rejected by a patent examiner is difficult but does not have to be the end of the story—even when the "no" is called a final rejection.

There are things that can be done to continue to attempt to persuade and convince a patent examiner that you are entitled to a patent.

A complete and exhaustive examination of rejections, and all the various procedural options that exist after various types of rejections have been received, go beyond the scope of this primer. Nevertheless, what follows is intended to give some basic understanding of the consequences and options facing patent applicants, post-rejection.

This primer should not be read as encouraging anyone to venture into these waters on their own. But all inventors and managers working with innovation-based technology companies should understand the basics.

Inventions are not rejected. What is rejected is the articulation of the invention as it appears in the claims.

Rejection of claims

After the patent examiner reads the patent application, a prior art search for the claimed invention is conducted. With the results of the prior art search in hand, together with any additional references provided by the applicant, the patent application is reviewed and analyzed by the patent examiner with an eye toward the state of the prior art in order to determine whether the claims define a patent eligible, useful, novel, nonobvious and enabled (i.e., properly described) invention.

In the event the patent examiner determines that one or more of the claims are not allowable under Title 35 of the U.S. Code, he or she will issue a rejection. Frequently, multiple rejections are made.

The goal of examination is for the patent examiner to clearly articulate all rejections to the claims as early in the process as possible, so the applicant has the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity. The examiner then reviews all the evidence, amendments to the claims and arguments responsive to any rejection before issuing the next office action.

Notice that whenever we talk about a rejection, we are referring to the claims or claimed invention.

One mistake many inventors make is believing a patent examiner rejects an invention. Inventions are not rejected. What is rejected is the articulation of the invention as it appears in the claims.

It is perfectly possible for a patentable invention to be described in the patent application but for the claims to be too broad or otherwise have some kind of infirmity that would lead to a rejection. Therefore, a rejection is not the end of the process but the starting point of a discussion with the examiner about what he or she will require the claim language to specifically say for the claim to be allowable.

This is the central focus of the examination process (i.e., patent prosecution), because the patent claims define the exclusive rights actually obtained from the federal government.

Objections: Speed bumps

The refusal to grant claims because the subject matter as claimed is considered unpatentable is called a "rejection." The term "rejected" is applied when the problem arises under concerns about patent ineligibility or lack of utility); lack of novelty; the claimed invention is obvious), and/or lack of adequate description.

If the form of the claim (as distinguished from its substance) is improper, an "objection" is made. The practical difference between a rejection and an objection is that a rejection, involving the merits of the claim, is subject to review by the Patent Trial and Appeal Board. But an objection, if persisted, may be reviewed only by way of petition to the director of the USPTO.

Similarly, the board will not hear or decide issues pertaining to objections and formal matters not properly before the board. Having said that, sometimes (perhaps even frequently) a rejection and objection can arise for the same reason because there is overlap between the rules to the form of a claim and the substance.

Many times, if you fix the problem with substance, the problem with the form goes away. Nevertheless, it is possible to have separate problems between form and substance.

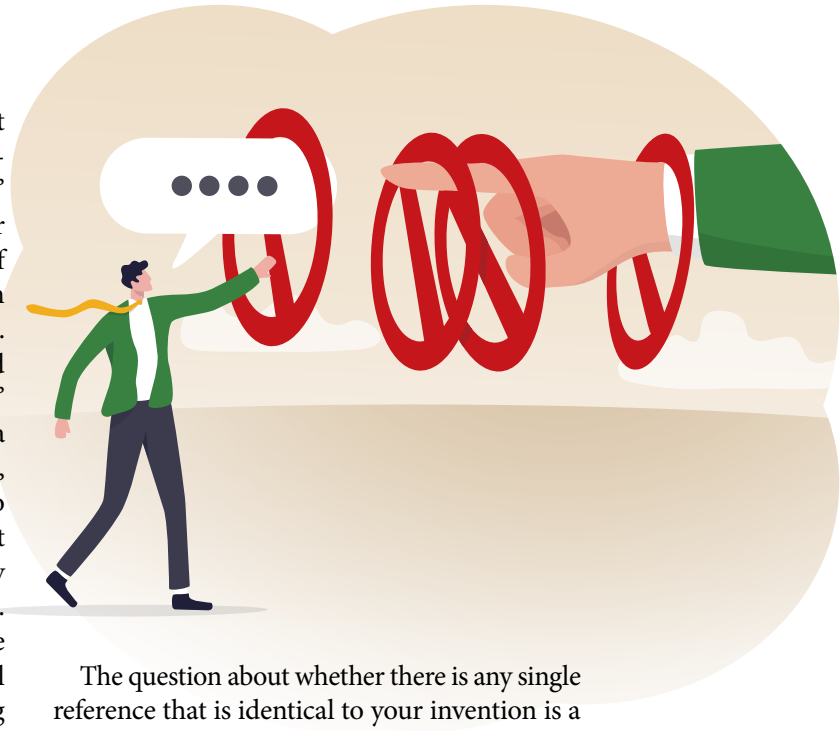
This probably sounds confusing. Suffice it to say that in almost all cases, if you only have a problem with the form of the claim that can be rather easily addressed to the satisfaction of the patent examiner.

Thus, objections are best thought of as speed bumps. Rejections can be much more difficult.

Prior art rejections

By far, the most frequent ground of rejection is on the ground of unpatentability in view of the prior art.

In assessing whether an invention is patentable, two questions must be answered. First, is the invention new (i.e., novel) compared with the prior art? Second, is the invention nonobvious in light of the prior art?



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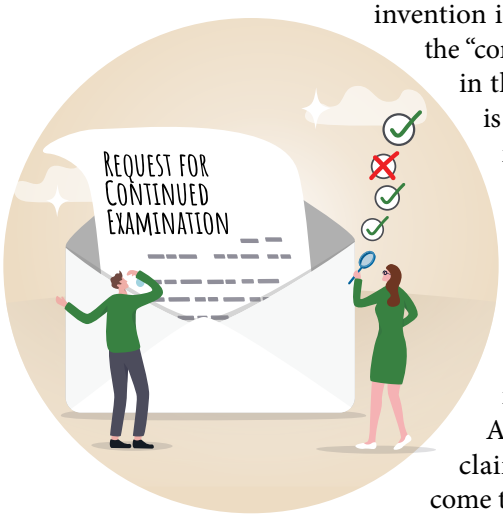
The question about whether there is any single reference that is identical to your invention is a threshold inquiry. Exact identity is part of patent laws that relate to what is called "novelty."

If an invention is found that is identical, the inquiry ends because no patent can be obtained. If no single prior art reference identically describes every aspect of your invention, this novelty hurdle has been cleared.

If a claim is rejected because it lacks novelty, one way to respond is to amend the claim to further add specifics to the claim so that it no longer identically describes the prior art the examiner has raised as an issue. You can also always choose to argue with the examiner—but generally speaking, some combination of amendment and argument is required.

Beyond the question of exact identity, the next question focuses on what makes your invention unique and distinguishable over the totality of the prior art. This is required because when a patent examiner deals with issues of obviousness, he or she will look at a variety of references and pull this from one and that from another, ultimately seeing if it's possible to find all the pieces, parts and functionality of your invention in the prior art.

There is more to it than just finding every piece and part, because on some level all inventions are made up of known pieces, parts and functionality. The true inquiry is to determine whether the combination of the pieces, parts and functionality found within the area of your invention is considered to be within the "common sense" of one of skill in the art, i.e., your invention is merely a trivial rearrangement of what is already known to exist.



If it is determined to be within the possession of one of ordinary skill in the art, the claimed subject matter will be rejected as being obvious. Again, you can amend the claim and/or argue to overcome this type of rejection.

Final rejection

A second or subsequent action on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims, nor based on information submitted in an information disclosure statement.

Where information is submitted in an information disclosure statement, the examiner may use the information submitted and make the next office action final whether or not the claims have been amended, provided that no other new ground of rejection that was not needed by amendment to the claims is introduced by the examiner.

This means that generally speaking, the second action you receive from a patent examiner is going to be a final rejection. The importance of this is that after you receive a final rejection, you are quite limited with respect to what you can do as a matter of right. This matters because at this point you almost always want one more amendment opportunity, which may not be available.

Once a proper final rejection has been entered, there is no longer any right to unrestricted further prosecution. This does not mean that no further amendment or argument will be considered. Any amendment that will place the application either in condition for allowance or in better form for appeal may be entered.

Amendments filed after the date of filing an appeal may also be entered to cancel claims or rewrite dependent claims into independent format. Interviews with patent examiners after final rejection are discretionary and entertained only if circumstances warrant.

Ordinarily, only one interview after final will ever be granted, but examiners do have discretion to grant a second interview if it is determined that it would materially assist in placing the application in condition for allowance.

So even after final rejection, there is still opportunity to work with the patent examiner to some limited extent, and you can certainly always appeal.

Generally speaking, what you will want to do after you get a final rejection will not be the type of thing you will have the right to do. In that likely situation, the most common thing to do is file what is called a Request for Continued Examination.

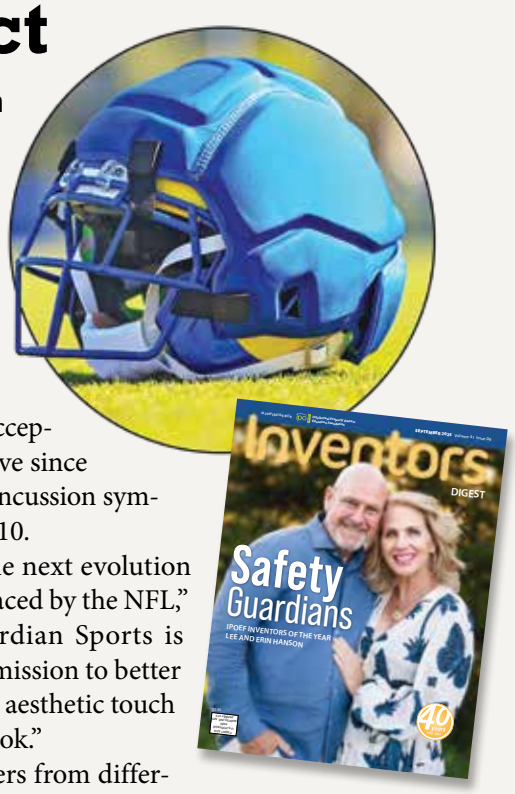
By filing an RCE, you get a fresh round of prosecution with the patent examiner, which means two more office actions to convince him or her that your claims (or amended claims) are entitled to be issued. Of course, as with everything in the patent space, it isn't quite that simple.

Remember above, it says that any second or subsequent action can be made final. That means that the first action in an RCE can become a final rejection, which is appropriate if you do not force the examiner to consider something that he or she hasn't seen before.

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.

A Growing Safety Impact

NFL teams given a choice in Guardian Caps helmet protection



When Lee and Erin Hanson conceived of and designed a soft-shell layer of helmet protection for kids playing football, the National Football League was not part of their plans. Now they bask in the irony that their product was used in the recent Super Bowl LX, followed by the league's April 8 announcement allowing all teams to choose between the Guardian Cap NXT and Guardian Cap NXT 2.0.

During the past four seasons, the NFL has mandated use of the caps in contact practices in the preseason, and allowed players to wear them during games.

The Guardian Cap NXT 2.0 (right) is a 12-ounce, soft-shell layer of padding with the same materials and performance as the Guardian Cap NXT. The updated version has a sleeker surface that allows for advanced customization and team branding. The NXT 2.0 can be customized with decals so the cap visually resembles team helmets.

Dozens of NCAA athletes used customized 2.0s in games this past season.

The Guardian Sports cofounders—*Inventors Digest* September 2025 cover subjects who were named Intellectual Property Owners Education Foundation Inventors of the Year—have seen the NFL's acceptance of their product evolve since Erin Hanson attended a concussion symposium by the league in 2010.

"We're thrilled to see the next evolution of the Guardian Cap embraced by the NFL," Erin Hanson said. "Guardian Sports is proud to continue on our mission to better protect athletes with a new aesthetic touch that has a classic helmet look."

More than 20 NFL players from different teams wore the Guardian Caps in games during the 2025 season. Next up: The Guardian Cap NXT 2.0 is expected to be adopted by players, along with Guardian's FLEX chinstraps, for the 2026 season. *—Reid Creager*

Follow the Money

Information from Megan Pater, founder of Fund-Nation

The DARPA Information Innovation Office (I2O) Office-Wide Broad Agency Announcement (BAA) is one of the most accessible federal pathways for researchers, inventors and small businesses to secure funding for disruptive research and development in AI, cybersecurity, information science and complex software systems.

With a rolling deadline until November 1, focus areas include transformative AI, secure software and offensive/defensive cybersecurity.

A three- to five-page abstract is required before a full proposal, allowing innovators to gauge DARPA's interest. Funding awards typically range from $500,000 to $5 million, depending on scope.

Details: *darpa.mil/research/opportunities/baa*

Wunderkinds

In 2023, high school students **Marta Bernardino** and **Sebastião Mendonça** began building a tree-planting robot called Trovador in response to frequent wildfires where they live in Portugal. The first prototype, made from recycled parts, cost $17 and could plant saplings about 28 percent faster than humans. Their invention has since received international awards. Now a fourlegged, dog-shaped machine, Trovador will use AI to check soil conditions before planting with the ability to plant up to 200 saplings an hour.

What IS That?

The **Dr. Pepper candle** is supposed to give a scent that smells like the iconic soda pop. Now if someone could just tell us what Dr. Pepper smells like ...

Get Busy!

World Health Expo 2026, June 17–19 in Miami Beach, Florida, showcases the latest in medical devices and pharmaceuticals, and technology for physicians, nurses, hospital administrators and researchers. *worldhealthexpo.com/miami*

WHAT DO YOU KNOW?

1 **The man who invented the parachute coat—meant to unfold into a parachute after someone jumps from a plane—died while testing the coat after jumping from which structure?**

A) Sears Tower
B) Eiffel Tower
C) Space Needle
D) Empire State Building

2 **True or false: George Gershwin's iconic composition "Rhapsody in Blue" is in the public domain.**

3 **True or false: Former NFL quarterback Tim Tebow still owns the trademark for the prayerful pose of "Tebowing."**

4 **Which was invented first—popcorn, or cotton candy?**

5 **He said: "A country without a patent office and good patent laws is just a crab, and can't travel any way but sideways and backways."**

A) Abraham Lincoln **B)** Thomas Edison
C) Benjamin Franklin **D)** Mark Twain

ANSWERS: 1.B. French tailor Franz Reichelt plunged 187 feet to his death in 1912. 2. True, as of January 1, 2020. 3. True. 4. Popcorn dates back at least 5,000 years; cotton candy was invented in 1897. 5.D.

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